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# INTRODUCTION

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### INTRODUCTION

This manual has been prepared with the assistance of service and engineering specialists to acquaint you with the operation and maintenance of your new vehicle. It is supplemented by a Warranty Information Booklet and various customer oriented documents. You are urged to read these publications carefully. Following the instructions and recommendations in this manual will help assure safe and enjoyable operation of your vehicle.

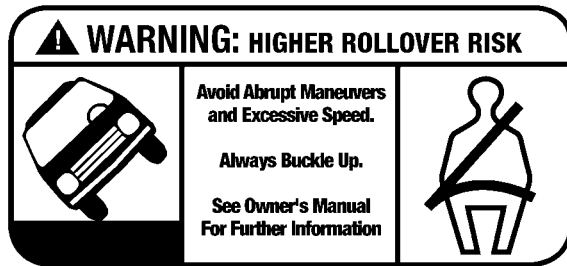
**NOTE:** After you read the manual, it should be stored in the vehicle for convenient reference and remain with the vehicle when sold, so that the new owner will be aware of all safety warnings.

When it comes to service, remember that your dealer knows your vehicle best, has the factory-trained technicians and genuine Mopar® parts, and is interested in your satisfaction.

### ROLLOVER WARNING

Utility vehicles have a significantly higher rollover rate than other types of vehicles. This vehicle has a higher ground clearance, and a higher center of gravity than many passenger cars. It is capable of performing better in a wide variety of off-road applications. Driven in an unsafe manner, all vehicles can be caused to go out of control. Because of the higher center of gravity, if this vehicle is out of control it may rollover when some other vehicles may not.

Do not attempt sharp turns or abrupt maneuvers or other unsafe driving actions that can cause loss of vehicle control. Failure to operate this vehicle safely may result in an accident, rollover of the vehicle, and severe or fatal injury. Drive carefully.



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### Rollover Warning Label

Failure to use driver and passenger seat belts provided is a major cause of severe or fatal injury. In fact, the U.S. government notes that the universal use of existing seat

belts could cut the highway death toll by 10,000 or more each year, and could reduce disabling injuries by 2 million annually. In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt. Always buckle up.





























### HOW TO USE THIS MANUAL

Consult the table of contents to determine which section contains the information you desire.

The detailed index, at the rear of this manual, contains a complete listing of all subjects.

Consult the following table for a description of the symbols that may be used on your vehicle or throughout this owner's manual:

## 6 INTRODUCTION

											
WATER IN FUEL	REAR WINDOW WIPER	WINDSHIELD WIPER INTERMITTENT	EXTERIOR BULB FAILURE	HIGH BEAM	TURN SIGNALS	UPPER AIR OUTLET	HEATED SEAT LOW	DOOR LOCK	ADJUSTABLE PEDALS	ELECTRONIC SPEED CONTROL	ELECTRONIC STABILITY PROGRAM / BRAKE ASSIST SYSTEM
											
FUEL	REAR WINDOW INTERMITTENT WIPER	WINDSHIELD WASHER	MASTER LIGHTING SWITCH	LOW BEAM	KEY ACTIVATE (POWER OUTLET)	UPPER AND LOWER AIR OUTLET	HEATED SEAT HIGH	WINDOW LIFT	TIRE PRESSURE MONITOR	HILL DESCENT CONTROL	BRAKE SYSTEM WARNING PARKING BRAKE
											
FUEL FILL SIDE	REAR WINDOW WASHER	WINDSHIELD WASHER FLUID LEVEL	DOME LIGHT	FRONT FOG LIGHT	HOOD RELEASE	LOWER AIR OUTLET	RECIRCULATION	CONVERTIBLE 4 WINDOW DOWN	TRACTION CONTROL	AWD!	FAILURE OF ANTI-LOCK BRAKING SYSTEM
											
ENGINE OIL	REAR WINDOW DEFROST	WINDSHIELD, ELECTRICALLY HEATED	PARK LIGHTS	REAR FOG LAMP	LIFTGATE RELEASE AND LIFTGATE OPEN	DEFROST AND LOWER AIR OUTLET	VENTILATING FAN	WINDOW LOCK	ELECTRONIC THROTTLE CONTROL	4WD!	BRAKE SYSTEM WARNING PARKING BRAKE
											
BATTERY CHARGING	HEATED MIRROR	WINDSHIELD DEFROST	INSTRUMENT PANEL ILLUMINATION	SEAT BELT	SLIDING DOOR	TRUNK / DECK RELEASE	AIR CONDITIONING	CHILD SEAT TETHER ANCHOR	VOICE RECOGNITION BUTTON	WARNING	TOW / HAUL
											
GLOW PLUG	POWER STEERING FLUID	WINDSHIELD WIPER AND WASHER	SIDE AIRBAG	AIRBAG	SLIDING DOOR	EMERGENCY RELEASE HANDLE	LIGHTER	LOWER ANCHORS AND TETHER FOR CHILDREN (LATCH)	UCONNECT™ BUTTON	HAZARD	4 LOW
											
MALFUNCTION INDICATOR LIGHT	TRANS OIL TEMP	ENGINE COOLANT TEMPERATURE	SRS AIRBAG	PASSENGER AIRBAG OFF	DOOR AJAR	CONVERTIBLE TOP DOWN	CONVERTIBLE TOP UP	HORN	SEE OWNER'S MANUAL ISO		

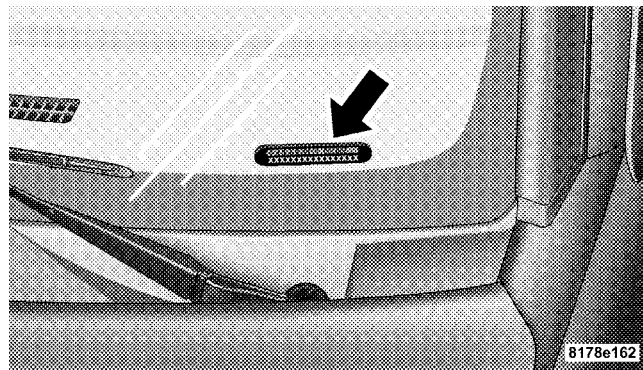
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## WARNINGS AND CAUTIONS

This manual contains **WARNINGS** against operating procedures, which could result in an accident or bodily injury. It also contains **CAUTIONS** against procedures, which could result in damage to your vehicle. If you do not read this entire manual, you may miss important information. Observe all Warnings and Cautions.

## VEHICLE IDENTIFICATION NUMBER

Vehicle Identification Number (VIN) is found on the left front corner of the instrument panel, visible through the windshield. This number also appears on the vehicle registration or title.



Vehicle Identification Number

## VEHICLE MODIFICATIONS/ALTERATIONS

### **WARNING!**

**Any modifications or alterations to this vehicle could seriously affect its roadworthiness and safety and may lead to an accident resulting in serious injury or death.**



# THINGS TO KNOW BEFORE STARTING YOUR VEHICLE

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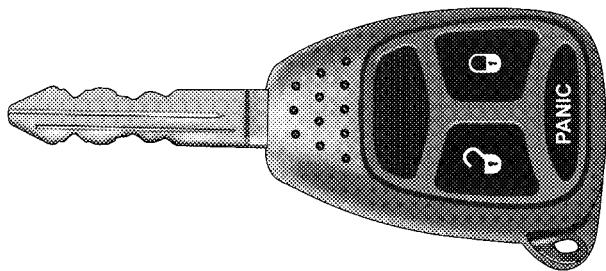
## 10 THINGS TO KNOW BEFORE STARTING YOUR VEHICLE

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### A WORD ABOUT YOUR KEYS

The dealer that sold you your new vehicle has the key code numbers for your vehicle locks. These numbers can be used to order duplicate keys from your dealer. Ask your dealer for these numbers and keep them in a safe place.



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Vehicle Key

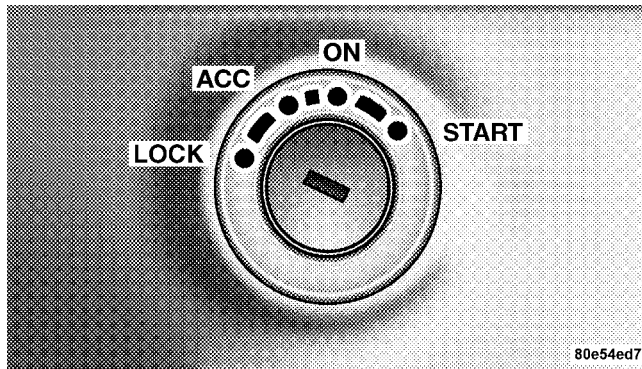
### Ignition Key Removal

#### Manual Transaxle

Turn the ignition switch to the ACC position, push the key and cylinder inward, rotate the key to the LOCK position, and remove the key.

#### Automatic Transaxle — If Equipped

Place the shift lever in PARK. Turn the ignition switch to the ACC position, push the key and cylinder inward, rotate the key to the LOCK position, and remove the key.



**Ignition Key Positions**

**NOTE:** If you try to remove the key before you place the lever in PARK, the key may become trapped temporarily in the ignition cylinder. If this occurs, rotate the key to the right slightly, then remove the key as described. If a malfunction occurs, the system will trap the key in the ignition cylinder to warn you that this safety feature is

inoperable. The engine can be started and stopped but the key cannot be removed until you obtain service.

### **WARNING!**

Never leave children alone in a vehicle. Leaving children in a vehicle unattended is dangerous for a number of reasons. A child or others could be seriously or fatally injured. Don't leave the keys in the ignition. A child could operate power windows, other controls, or move the vehicle.

2

### **CAUTION!**

An unlocked car is an invitation to thieves. Always remove key from the ignition and lock all doors when leaving the vehicle unattended.

**Locking Doors With The Key**

You can insert the key with either side up. To lock the door, turn the key rearward, to unlock the door, turn the key forward. See Section 7 of this manual for door lock lubrication.

**Key-In-Ignition Reminder**

Opening the driver's door when the key is in the ignition, sounds a signal to remind you to remove the key.

**NOTE:** With the driver's door open, and the key in the ignition, both the power door locks and Remote Keyless Entry (RKE) will not function.

**STEERING WHEEL LOCK — MANUAL TRANSMISSION ONLY**

Your manual transmission vehicle is equipped with a passive steering wheel lock. This lock prevents steering the vehicle without the ignition key. If the steering wheel

is moved no more than 1/2 turn in either direction and the key is not in the ignition switch, the steering wheel will lock.

**To Manually Lock the Steering Wheel**

With the engine running, turn the steering wheel upside down, turn off the engine and remove the key. Turn the steering wheel slightly in either direction until the lock engages.

**To Release the Steering Wheel Lock**

Insert the key in the ignition switch and start the engine. If the key is difficult to turn, move the wheel slightly to the right or left to disengage the lock.

**NOTE:** If you turned the wheel to the right to engage the lock, you must turn the wheel slightly to the right to disengage it. If you turned the wheel to the left to engage the lock, turn the wheel slightly to the left to disengage it.

**SENTRY KEY**

The Sentry Key Immobilizer System prevents unauthorized vehicle operation by disabling the engine. The system does not need to be armed or activated. Operation is automatic, regardless of whether the vehicle is locked or unlocked.

The system uses ignition keys, which have an embedded electronic chip (transponder), to prevent unauthorized vehicle operation. Therefore, only keys that are programmed to the vehicle can be used to start and operate the vehicle. The system will shut the engine off in two (2) seconds if someone uses an invalid key to start the engine.

**NOTE:** A key, which has not been programmed, is also considered an invalid key even if it is cut to fit the ignition switch lock cylinder for that vehicle.

During normal operation, after turning on the ignition switch, the Vehicle Security Alarm Indicator Light will

turn on for three (3) seconds for a bulb check. If the light remains on after the bulb check, it indicates that there is a problem with the electronics. In addition, if the light begins to flash after the bulb check, it indicates that someone used an invalid key to start the engine. Either of these conditions will result in the engine being shut off after two (2) seconds.

If the Vehicle Security Alarm Indicator Light turns on during normal vehicle operation (vehicle running for longer than 10 seconds), it indicates that there is a fault in the electronics. Should this occur, have the vehicle serviced as soon as possible.

**NOTE:**

- The Sentry Key Immobilizer System is not compatible with some after-market remote starting systems. Use of these systems may result in vehicle starting problems and loss of security protection.

- Exxon/Mobil Speed Pass,<sup>™</sup> additional Sentry Keys, or any other transponder-equipped components on the same key chain will **not** cause a key-related (transponder) fault unless the additional part is **physically held against the ignition key** being used when starting the vehicle. Cell phones, pagers, or other RF electronics will not cause interference with this system.

All of the keys provided with your new vehicle have been programmed to the vehicle electronics.

### Replacement Keys

**NOTE:** Only keys that are programmed to the vehicle electronics can be used to start and operate the vehicle. Once a Sentry Key is programmed to a vehicle, it cannot be programmed to any other vehicle.

### CAUTION!

**Always remove Sentry Keys from the vehicle and lock all doors when leaving the vehicle unattended.**

At the time of purchase, the original owner is provided with a four-digit PIN number. Keep the PIN in a secure location. This number is required for dealer replacement of keys. Duplication of keys may be performed at an authorized dealer or by using the Customer Key Programming procedure. This procedure consists of programming a blank key to the vehicle electronics. A blank key is one, which has never been programmed.

**NOTE:** When having the Sentry Key Immobilizer System serviced, bring all vehicle keys with you to the dealer.



### Customer Key Programming

If you have two valid sentry keys, you can program new sentry keys to the system by performing the following procedure:

1. Cut the additional Sentry Key Transponder blank(s) to match the ignition switch lock cylinder key code.
2. Insert the first valid key into the ignition switch. Turn the ignition switch to the "ON" position for at least 3 seconds, but no longer than 15-seconds. Then, turn the ignition switch to the "LOCK" position and remove the first key.
3. Insert the second valid key into the ignition switch. Turn the ignition switch to the "ON" position within 15 seconds. After ten seconds, a chime will sound. In addition, the Vehicle Security Alarm Indicator Light will begin to flash. Turn the ignition switch to the "LOCK" position and remove the second key.

4. Insert a blank Sentry Key into the ignition switch. Turn the ignition switch to the "ON" position within 60 seconds. After 10 seconds, a single chime will sound. In addition, the Vehicle Security Alarm Indicator Light will stop flashing. To indicate that programming is complete, the indicator light will turn on again for 3 seconds and then turn off.

The new Sentry Key is programmed. **The Keyless Entry Transmitter will also be programmed during this procedure.**

Repeat this procedure to program up to 8 keys. If you do not have a programmed sentry key, contact your dealer for details.

**NOTE:** If a programmed key is lost, see your dealer to have all remaining keys erased from the systems memory. This will prevent the lost key from starting your

vehicle. The remaining keys must then be reprogrammed. All vehicle keys must be taken to the dealer at the time of service to be reprogrammed.

### **General Information**

The Sentry Key system complies with FCC rules part 15 and with RSS-210 of Industry Canada. Operation is subject to the following conditions:

- This device may not cause harmful interference.
- This device must accept any interference that may be received, including interference that may cause undesired operation.

### **SECURITY ALARM SYSTEM — IF EQUIPPED**

The system monitors the doors, hood, liftgate, and ignition switch for unauthorized operation.

If something triggers the alarm, the system will signal with the horn for 30 seconds and the lights for 60 seconds. If the triggering device is not deactivated the horn will sound again after a 5 second delay for another 30 seconds. If the trigger remains present this cycle will repeat for up to 5 minutes.

### **To Set the Alarm**

1. Remove the keys from the ignition switch and get out of the vehicle.
2. Lock the door using either the power door lock switch, or the Keyless Entry Transmitter and close all doors.
3. The indicator light in the instrument cluster will flash rapidly for 16 seconds. This shows that the system is arming. During this period, if a door is opened, the

ignition switch is turned ON, or the power door locks are unlocked in any manner, the system will automatically disarm. After 16 seconds the indicator light will flash slowly. This shows that the system is fully armed.

### To Disarm the System

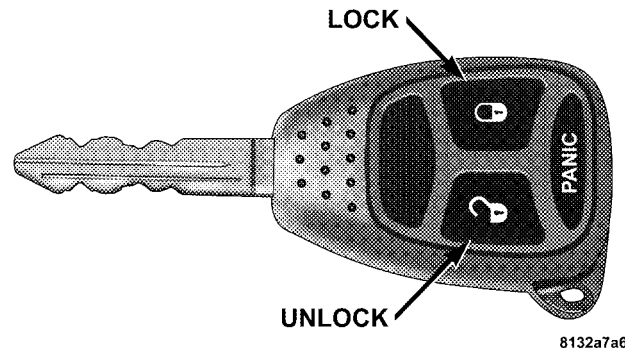
1. Press UNLOCK on the Keyless Entry Transmitter.
2. Starting the vehicle with a valid Sentry key will disarm the system. A valid key is one that is programmed to that particular vehicle. A valid key will disarm the system, an invalid key will allow the engine to run for 2 seconds and stop.

### Security System Manual Override

The system will not arm if you lock the doors using the manual door lock plunger.

### REMOTE KEYLESS ENTRY — IF EQUIPPED

This system allows you to lock or unlock the doors and liftgate or activate the panic alarm from distances a maximum of 66 feet (20 meters) using a hand held radio transmitter. The transmitter need not be pointed at the vehicle to activate the system.



Three Button Transmitter

**NOTE:** The line of transmission must not be blocked with metal objects.

### **To Unlock the Doors and Liftgate**

Press and release the UNLOCK button on the key fob once to unlock only the driver's door or twice to unlock all the doors and liftgate. When the UNLOCK button is pressed, the illuminated entry will initiate, and the parking lights will flash on twice. The time for this feature is programmable on vehicles equipped with the Electronic Vehicle Information Center (EVIC). Refer to "Turn Headlamps on with Remote Key Unlock" under "Personal Settings" in the Electronic Vehicle Information Center (EVIC) section of this manual for details.

**NOTE:** The system can also be programmed to unlock all doors on the first press of the UNLOCK button. On electronic vehicle information center (EVIC) equipped vehicles refer to "Remote Unlock Driver's Door 1st"

under "Personal Settings" in the EVIC section of this manual. On non EVIC – equipped vehicles perform the following steps:

The system can be programmed to unlock all the doors upon the first UNLOCK button press by using the following procedure:

1. Press and hold the LOCK button on a programmed key fob.
2. Continue to hold the LOCK button at least 4 seconds, but not longer than 10 seconds, then press and hold the UNLOCK button. A single chime will sound to indicate that this feature has changed.
3. Release both buttons at the same time.
4. Test the feature while outside of the vehicle, by pressing the LOCK/UNLOCK button on the keyfob.

**NOTE:** Pressing the LOCK button on the keyfob while you are inside the vehicle will activate the Security Alarm. Opening a door with the Security Alarm activated will cause the alarm to sound. Press the UNLOCK button to deactivate the Security Alarm.

5. If the desired programming was not achieved or to reactivate this feature, repeat the above steps.

### **To Lock the Doors and Liftgate**

Press and release the LOCK button on the transmitter to lock all doors. The turn signal lights will flash and the horn will chirp once to acknowledge the lock signal. If desired, the “Sound Horn On Lock” feature can be turned on or off. On electronic vehicle information center (EVIC) equipped vehicles refer to “Personal Settings” in the “Electronic Vehicle Information Center (EVIC)” section of this manual. On non EVIC – equipped vehicles perform the following steps:

1. Press the LOCK button for 4 to 10 seconds.

2. While the LOCK button is pressed (after 4 seconds), press the PANIC button. Release both buttons.

The “Sound Horn On Lock” and “Flash Lamps With Lock” feature can be reactivated by repeating this procedure.

### **Using The Panic Alarm**

To turn the panic alarm feature ON or OFF, press and hold the PANIC button on the transmitter for at least one second and release. When the panic alarm is on, the headlights and park lights will flash, the horn will pulse on and off and the interior lights will turn on.

The panic alarm will stay on for 3 minutes unless you turn it off by pressing the PANIC button a second time or if the vehicle speed is 5 mph (8 km/h) or greater.

**NOTE:** When you turn off the panic alarm by pressing the PANIC button a second time, you may have to be closer to the vehicle due to the radio frequency noises of the system.

### **To Turn Off “Flash Lights With Lock”**

**NOTE:** The Flash Lights With Lock feature can be turned on or off. On electronic vehicle information center (EVIC) equipped vehicles refer to “Personal Settings” in the EVIC section of this manual. On non EVIC - equipped vehicles perform the following steps:

1. Press the UNLOCK button for 4 to 10 seconds.
2. While the UNLOCK button is pressed, (after 4 seconds) press the LOCK button. Release both buttons.
3. Test the flash lamps with LOCK feature while outside of the vehicle, by pressing the LOCK button on the key fob with the ignition in the LOCK position, and the key removed.

**NOTE:** Pressing the LOCK button on the key fob, while you are in the vehicle, will activate the Security Alarm. Opening a door with the Security Alarm activated will cause the alarm to sound. Press the UNLOCK button to deactivate the Security Alarm.

The “Flash Lights On Lock/Unlock” feature can be reactivated by repeating this procedure.

### **Programming Additional Transmitters**

Vehicles will be shipped from the assembly plants with two key fob transmitters programmed only for that vehicle. A total of eight fobs can be programmed for your vehicle. Additional fobs can be programmed to your vehicle through the use of a currently programmed fob.

**NOTE:** When entering program mode using that fob, all other programmed fobs will be erased and you will have to reprogram them for your vehicle.

Use the Following procedure to program additional key fobs if the vehicle is not equipped with Sentry Key:

1. Enter your vehicle and close all doors.
2. Fasten your seat belt (Fastening the seatbelt will cancel any chiming that may confuse you during this programming procedure).
3. Place the key into the ignition.
4. Turn the ignition to the ON position ( **Do not start the engine** ).
5. Press and hold the UNLOCK button on the key fob.
6. After holding the UNLOCK button for four seconds, also press the PANIC button within 6 seconds.
7. When a single chime is heard release both buttons. The chime is an indication that you have successfully entered program mode. All fobs that are to be programmed must be done so within 60 seconds of when the chime was heard.

8. Using the fob to be programmed, press and release both the LOCK and UNLOCK buttons, simultaneously.

9. A single chime will be heard.

10. Within four seconds of hearing the chime, press and release the UNLOCK button on the fob.

11. A single chime will be heard.

12. Repeat steps 8 through 10 to program up to six additional fobs.

13. Turn the ignition to the OFF position.

14. Your vehicle will remain in program mode up to 60 seconds from when the original chime was heard. After 60 seconds, all programmed fobs function normally.

**NOTE:** If you do not have a programmed transmitter, contact your dealer for details.

### General Information

This device complies with part 15 of FCC rules and with RS-210 of Industry Canada. Operation is subject to the following conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference that may be received including interference that may cause undesired operation.

**NOTE:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

If your Remote Lock Control fails to operate from a normal distance, check for these two conditions.

1. Weak batteries in transmitter. The expected life of batteries is five years.

2. Closeness to a radio transmitter such as a radio station tower, airport transmitter, military base, and some mobile or CB radios.

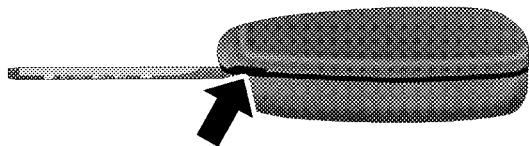
### Battery Replacement

The recommended replacement battery is CR2032.

**NOTE:** Perchlorate Material – special handling may apply, See [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate).”

1. If the key fob is equipped with a screw, remove the screw. With the transmitter buttons facing down, use a flat blade to pry the two halves of the transmitter apart. Make sure not to damage the elastomer seal during removal.





Separating Transmitter Halves

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2. Remove and replace the batteries. Avoid touching the new batteries with your fingers. Skin oils may cause battery deterioration. If you touch a battery, clean it with rubbing alcohol.

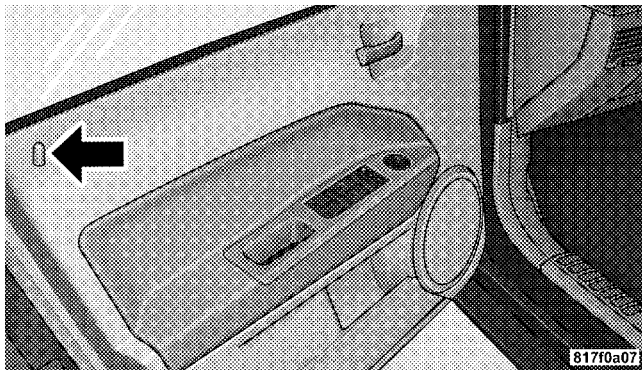
3. To assemble the transmitter case, snap the two halves together.

**NOTE:** If the key fob is equipped with a screw, reinstall and tighten the screw until snug.

## DOOR LOCKS

### Manual Door Locks

Use the manual door lock plunger to lock the doors from inside the vehicle. If the plunger is down when the door is closed, the door will lock. Therefore, make sure the keys are not inside the vehicle before closing the door.



Manual Door Lock Plunger

### **WARNING!**

For personal security, and safety in the event of an accident, lock the vehicle doors as you drive as well as when you park and leave the vehicle.

### **WARNING!**

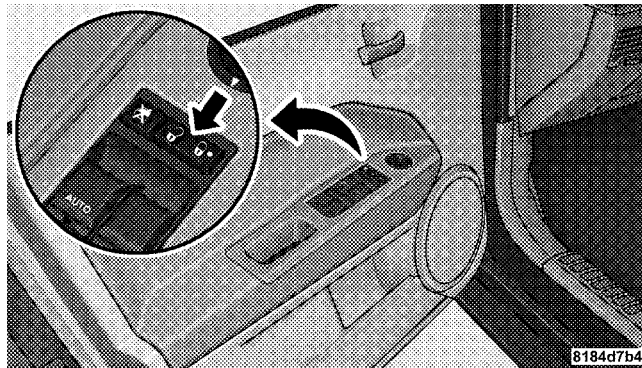
When leaving the vehicle always remove the key from the ignition lock, and lock your vehicle. Do not leave children unattended in the vehicle, or with access to an unlocked vehicle. Unsupervised use of vehicle equipment may cause severe personal injuries and death.

### **CAUTION!**

An unlocked vehicle is an invitation to thieves. Always remove the key from the ignition and lock all of the doors when leaving the vehicle unattended.

### Power Door Locks

A door lock switch is located on the driver door panel. Press this switch to lock or unlock the doors.



**Power Door Lock Switches**

### Automatic Door Locks—If Equipped

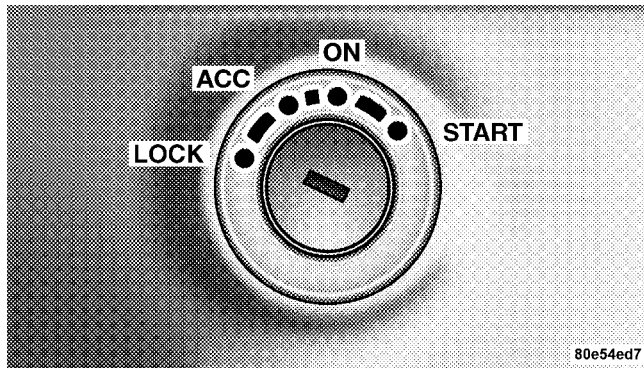
The doors will lock automatically on vehicles with power door locks if all of the following conditions are met:

1. The Auto Lock feature is enabled.
2. The transmission is in gear.
3. All doors are closed.
4. The throttle is pressed.
5. The vehicle speed is above 15 mph (24 km/h).
6. The doors were not previously locked using the power door lock switch or remote keyless entry transmitter.

The Automatic Door Lock feature can be enabled or disabled. Refer to “Personal Settings” (Customer Programmable Features) in the Electronic Vehicle Information Center (EVIC) — if equipped section of this manual for details.

For vehicles not equipped with the EVIC the Automatic Door Locks can be enabled or disabled by performing the following procedure:

1. Close all doors and place the key in the ignition.
2. Cycle the ignition switch between LOCK and ON and back to LOCK 4 times ending up in the LOCK position.



Ignition Key Position

3. Depress the power door lock switch to lock the doors.
4. Verify reprogramming by driving the vehicle.

### Auto Unlock

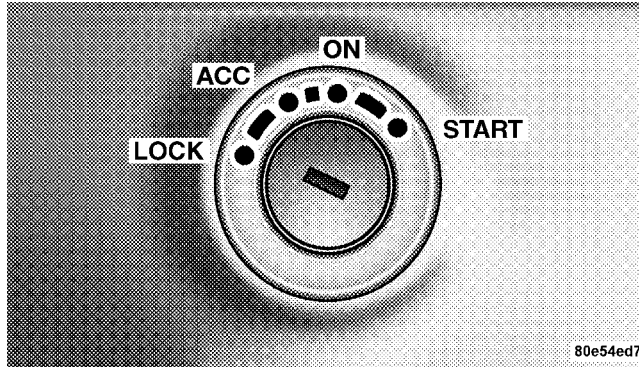
The doors will unlock automatically on vehicles with power door locks if:

1. The Auto Unlock feature is enabled.
2. The transmission was in gear and the vehicle speed returned to 0 mph (0 km/h).
3. The transmission is in NEUTRAL or PARK.
4. The driver door is opened.
5. The doors were not previously unlocked.
6. The vehicle speed is 0 mph (0 km/h).

The Auto Unlock feature can be enabled or disabled. Refer to "Personal Settings" (Customer Programmable Features) in the Electronic Vehicle Information Center (EVIC) — if equipped section of this manual.

For vehicles not equipped with the EVIC the Auto Unlock Feature can be enabled or disabled by performing the following procedure:

1. Close all doors and place the key in the ignition.
2. Cycle the ignition switch between LOCK and ON and back to LOCK 4 times ending up in the LOCK position.



Ignition Key Position

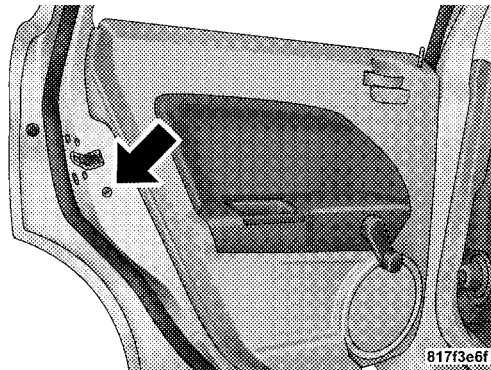
3. Depress the power door unlock switch to unlock the doors.

4. A single chime will indicate the completion of the programming.

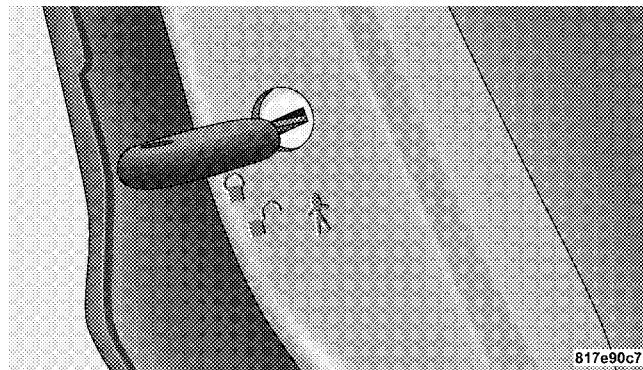
**NOTE:** Use the Auto Door Locks and Auto Unlock features in accordance with local laws.

**“Child-Protection” Door Lock System (Rear Doors) — If Equipped**

Insert the tip of the ignition key into the lock and rotate to the lock or unlock position.



**Child Protection Door Lock Location**

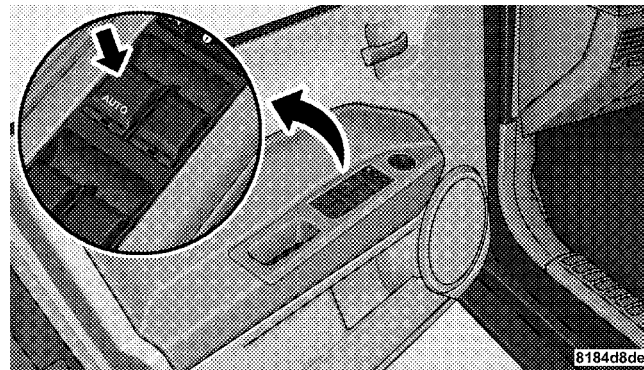


**Inserting Ignition Key**

**WARNING!**

Avoid trapping anyone in a vehicle in a collision. Remember that the rear doors can only be opened from the outside when the child protection locks are engaged.

**NOTE:** For emergency exit with the system engaged, move the lock plunger up (unlocked position), roll down window and open the door with the outside door handle.

**POWER WINDOWS— IF EQUIPPED****Power Window Switches****Power Window Switch Location**

The control on the left front door has up-down switches that give you finger tip control of all four power windows. There is a single opening and closing switch on the passenger doors for passenger window control. The



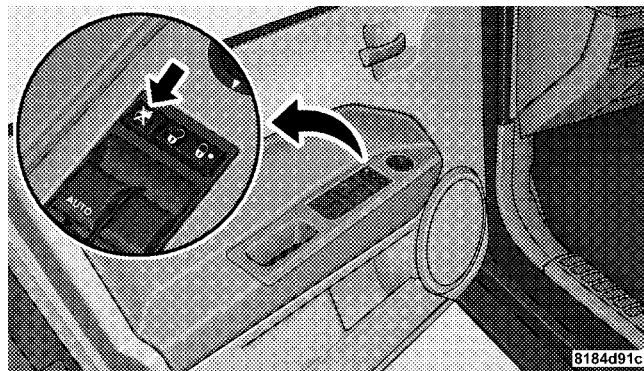
windows will operate only when the ignition switch is turned to the ON position, ACC position, and for up to 10 minutes after the ignition is turned OFF or the driver's door is opened. Refer to "Delay Power Off to Accessories Until Exit" under the "Understanding your Instrument Panel" section.

### Auto Down

The driver's window switch has an Auto Down feature. Push the window switch past the first detent, release, and the window will go down automatically. To cancel the Auto Down movement, operate the switch in either the up or down direction and release the switch.

### Window Lockout Switch

The window lockout switch on the driver's door allows you to disable the window control on the other doors. To disable the window controls on the other doors, press the window lock button. To enable the window controls, press the window control button again.



Lock Out Switch

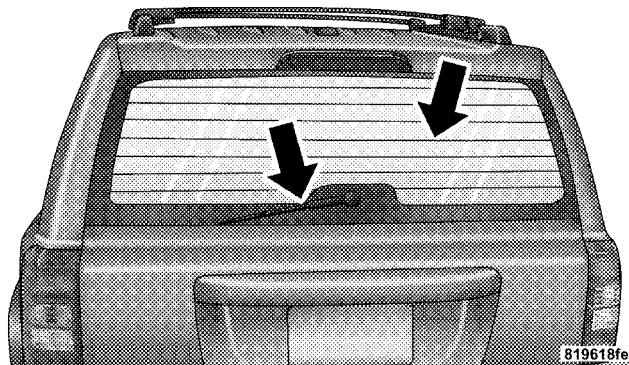


## LIFTGATE

**NOTE:** The key that is used to start the vehicle is also used to lock or unlock the doors and open the liftgate.

To unlock the liftgate, insert the key into the lock and turn to the right (manual lock models only). The liftgate can also be unlocked using the remote keyless entry or by activating the power door lock switches located on the front doors. The central locking/unlocking feature (if equipped) can also be activated from the liftgate key cylinder.

Once unlocked, the liftgate can be opened or closed without using the key. To open the liftgate, squeeze the liftgate release and pull the liftgate open with one fluid motion.



### Opening The Liftgate

**NOTE:** In the event of a power malfunction, or the remote transmitter is inoperative, insert the key into the liftgate lock cylinder and turn to the right (manual lock models only). Using the liftgate handle, pull the liftgate open with one fluid motion.

Although the liftgate has no inside release mechanism, the liftgate trim panel includes an opening with a snap-in cap that provides access to release the latch in the event of an electrical system malfunction.

### **WARNING!**

- **Driving with the liftgate open can allow poisonous exhaust gases into your vehicle. You and your passengers could be injured by these fumes. Keep the liftgate closed when you are operating the vehicle.**
- **If you are required to drive with the liftgate open, make sure that all windows are closed, and the climate control blower switch is set at high speed. DO NOT use the recirculation mode.**

Gas props support the liftgate in the open position. However, because the gas pressure drops with temperature, it may be necessary to assist the props when opening the liftgate in cold weather.

### **OCCUPANT RESTRAINTS**

Some of the most important safety features in your vehicle are the restraint systems. These include the front and rear seat belts for the driver and all passengers, front airbags for both the driver and front passenger and if equipped, side airbags for both the driver and front passenger. If you will be carrying children too small for adult-size seat belts, your seat belts or the LATCH feature also, can be used to hold infant and child restraint systems.

Please pay close attention to the information in this section. It tells you how to use your restraint system properly to keep you and your passengers as safe as possible.

**WARNING!**

**In a collision, you and your passengers can suffer much greater injuries if you are not properly buckled up. You can strike the interior of your vehicle or other passengers, or you can be thrown out of the vehicle. Always be sure you and others in your vehicle are buckled up properly.**

Buckle up even though you are an excellent driver, even on short trips. Someone on the road may be a poor driver and cause a collision that includes you. This can happen far away from home or on your own street.

Research has shown that seat belts save lives, and they can reduce the seriousness of injuries in a collision. Some

of the worst injuries happen when people are thrown from the vehicle. Seat belts reduce the possibility of ejection and the risk of injury caused by striking the inside of the vehicle. **Everyone** in a motor vehicle should be belted at all times.

**Lap/Shoulder Belts**

All the seats in your vehicle are equipped with Lap/Shoulder Belts.

The belt webbing retractor is designed to lock during very sudden stops or collisions. This feature allows the shoulder part of the belt to move freely with you under normal conditions. But in a collision, the belt will lock and reduce the risk of your striking the inside of the vehicle or being thrown out.

**WARNING!**

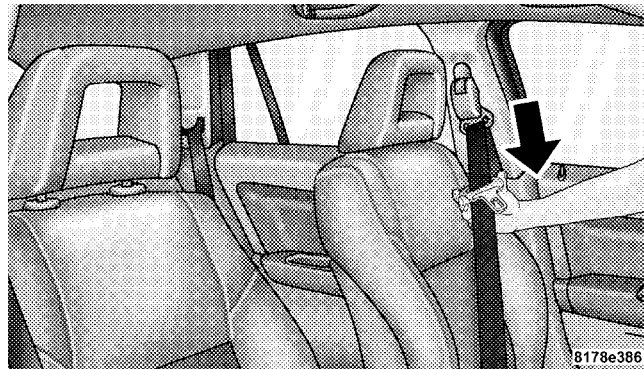
- It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a collision, people riding in these areas are more likely to be seriously injured or killed.
- Do not allow people to ride in any area of your vehicle that is not equipped with seats and seat belts.
- Be sure everyone in your vehicle is in a seat and using a seat belt properly.

**WARNING!**

- Wearing a seat belt incorrectly is dangerous. Seat belts are designed to go around the large bones of your body. These are the strongest parts of your body and can take the forces of a collision the best.
- Wearing your belt in the wrong place could make your injuries in a collision much worse. You might suffer internal injuries, or you could even slide out of part of the belt. Follow these instructions to wear your seat belt safely and to keep your passengers safe, too.
- Two people should never be belted into a single seat belt. People belted together can crash into one another in an accident, hurting one another badly. Never use a lap/shoulder belt or lap belt for more than one person, no matter what their size.

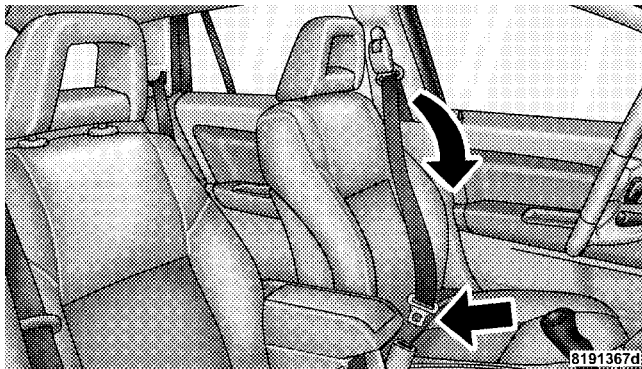
### Lap/Shoulder Belt Operating Instructions

1. Enter the vehicle and close the door. Sit back and adjust the seat.
2. The seat belt latch plate is above the back of the front seat, next to your arm. Grasp the latch plate and pull out the belt. Slide the latch plate up the webbing as far as necessary to allow the belt to go around your lap.



**Pulling Out The Latch Plate**

3. When the belt is long enough to fit, insert the latch plate into the buckle until you hear a “click.”

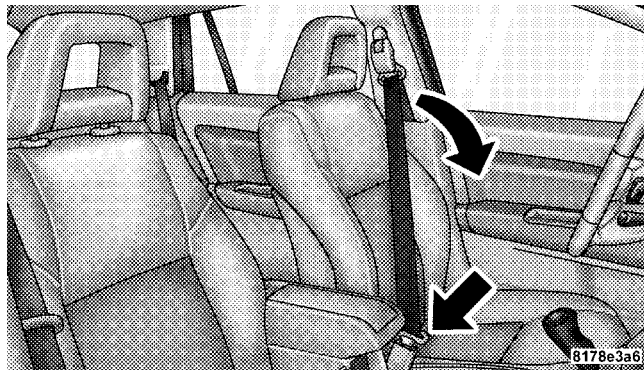


Inserting Latch Plate Into Buckle

### WARNING!

- A belt that is buckled into the wrong buckle will not protect you properly. The lap portion could ride too high on your body, possibly causing internal injuries. Always buckle your belt into the buckle nearest you.
- A belt that is too loose will not protect you as well. In a sudden stop you could move too far forward, increasing the possibility of injury. Wear your seat belt snugly.
- A belt that is worn under your arm is very dangerous. Your body could strike the inside surfaces of the vehicle in a collision, increasing head and neck injury. A belt worn under the arm can cause internal injuries. Ribs aren't as strong as shoulder bones. Wear the belt over your shoulder so that your strongest bones will take the force in a collision.
- A shoulder belt placed behind you will not protect you from injury during a collision. You are more likely to hit your head in a collision if you do not wear your shoulder belt. The lap and shoulder belt are meant to be used together.

4. Position the lap belt across your thighs, below your abdomen. To remove slack in the lap belt portion, pull up on the shoulder belt. To loosen the lap belt if it is too tight, tilt the latch plate and pull on the lap belt. A snug belt reduces the risk of sliding under the belt in a collision.



**Positioning Lap Belt**

### **WARNING!**

- A lap belt worn too high can increase the risk of internal injury in a collision. The belt forces won't be at the strong hip and pelvic bones, but across your abdomen. Always wear the lap belt as low as possible and keep it snug.
- A twisted belt can't do its job as well. In a collision it could even cut into you. Be sure the belt is straight. If you can't straighten a belt in your vehicle, take it to your dealer and have it fixed.

5. Position the shoulder belt on your chest so that it is comfortable and not resting on your neck. The retractor will withdraw any slack in the belt.

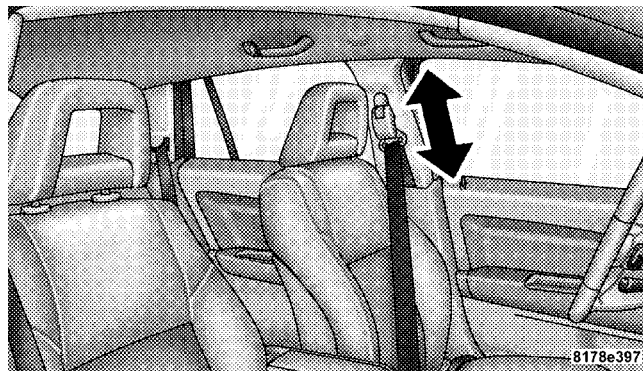
6. To release the belt, push the red button on the buckle. The belt will automatically retract to its stowed position. If necessary, slide the latch plate down the webbing to allow the belt to retract fully.

### **WARNING!**

A frayed or torn belt could rip apart in a collision and leave you with no protection. Inspect the belt system periodically, checking for cuts, frays, or loose parts. Damaged parts must be replaced immediately. Do not disassemble or modify the system. Seat belt assemblies must be replaced after a collision if they have been damaged (bent retractor, torn webbing, etc.).

### **Adjustable Upper Shoulder Belt Anchorage**

In the front seat, the shoulder belt can be adjusted upward or downward to position the belt away from your neck. Push anchorage button to release the anchorage, and move it up or down to the position that serves you best.



**Adjustable Anchorage**

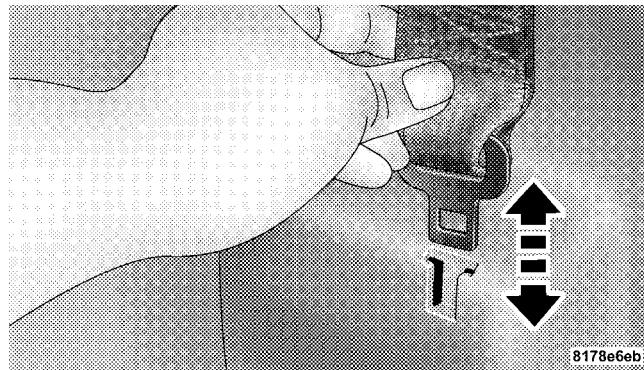


As a guide, if you are shorter than average, you will prefer a lower position, and if you are taller than average, you'll prefer a higher position. When you release the anchorage, try to move it up or down to make sure that it is locked in position.

### Second Row Center Lap/Shoulder Belt Operating Instructions

The second row center lap/shoulder belt features a three point seat belt with a mini latch and buckle, which allows the shoulder belt to detach from the lower anchor when the seat is folded. The mini buckle and shoulder belt can then be stored out of the way in the right side trim panel for added convenience.

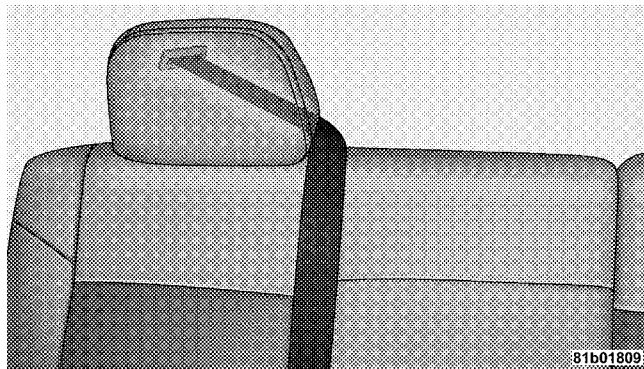
1. Remove the mini latch and regular latch from its stowed position in the right rear side trim panel.



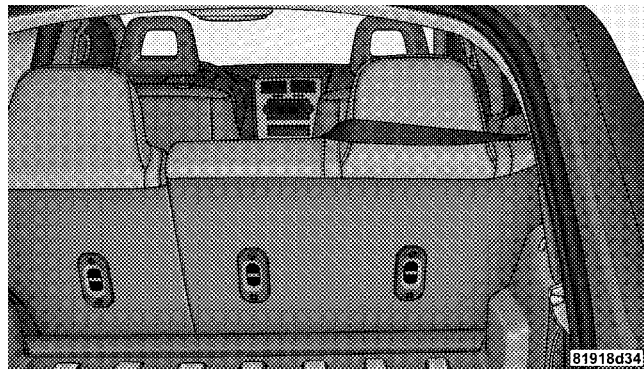
#### Mini Latch Stowage

2. Grasp the mini latch plate and pull the belt over the seat.

3. Route the shoulder belt to the inside of the right head restraint.



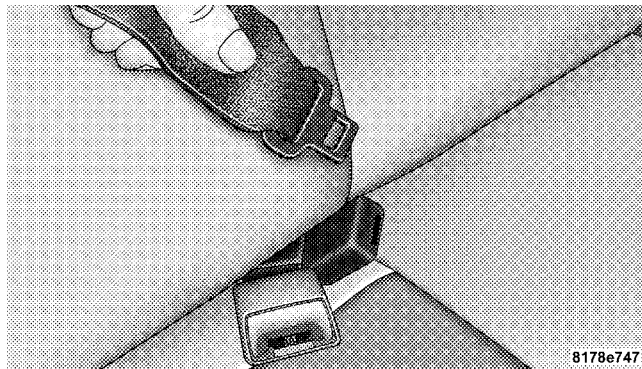
**Routing The Rear Center Shoulder Belt**



**Routing The Rear Center Shoulder Belt**

4. When the belt is long enough to fit, insert the mini latch plate into the mini buckle until you hear a “click.”
5. Sit back in seat. Slide the regular latch plate up the webbing as far as necessary to allow the belt to go around your lap.

6. When the belt is long enough to fit, insert the latch plate into the buckle until you hear a “click.”

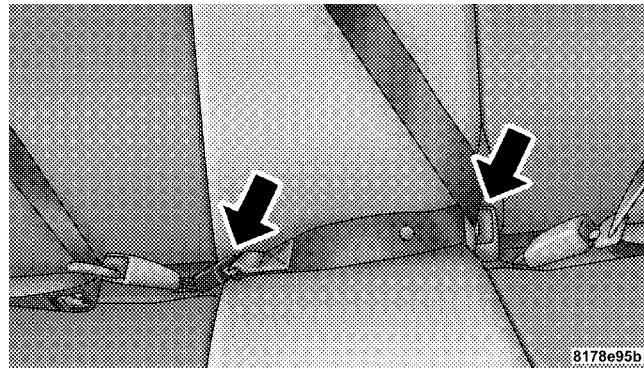


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#### Connecting Mini Latch to Buckle

7. Position the lap belt across your thighs, below your abdomen. To remove slack in the lap belt portion, pull up

on the shoulder belt. To loosen the lap belt if it is too tight, pull on the lap belt. A snug belt reduces the risk of sliding under the belt in a collision.

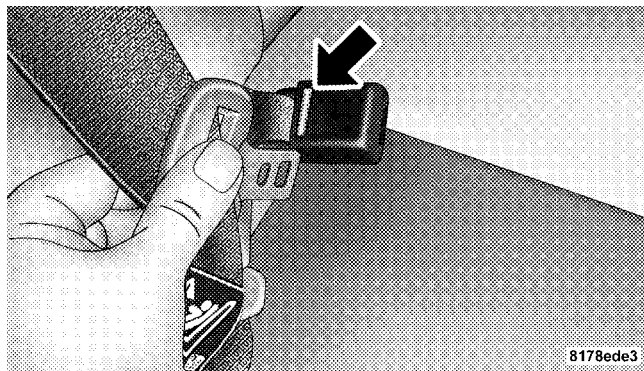


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#### Rear Center Seat Belt Buckled

8. Position the shoulder belt on your chest so that it is comfortable and not resting on your neck. The retractor will withdraw any slack in the belt.

9. To release the belt, push the red button on the buckle.



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#### **Detaching Mini Latch and Buckle**

10. To disengage the mini latch from the mini buckle for storage, insert the regular latch plate into the black button on the top of the mini buckle. The belt will automatically retract to its stowed position. If necessary,

slide the latch plate down the webbing to allow the belt to retract fully. Insert the mini latch plate into the slot provided in the trim panel.

#### **Seat Belt Pretensioners**

The seat belts for both front seating positions are equipped with pretensioning devices that are designed to remove any slack from the seat belts in the event of a collision. These devices improve the performance of the seat belt system by assuring that the belt is tight about the occupant in a collision. Pretensioners work for all size occupants, including those in child restraints.

**NOTE:** These devices are not a substitute for proper seat belt placement by the occupant. The seat belt still must be worn snugly and positioned properly.

The pretensioners are triggered by the Airbag Control Module (refer to information on Airbags in this section). Like the front airbags, the pretensioners are single use

items. After a collision that is severe enough to deploy the airbags and pretensioners, both must be replaced.

### **Enhanced Driver Seat Belt Reminder System (BeltAlert)**

If the driver's seat belt has not been buckled within 60 seconds of starting the vehicle and if the vehicle speed is greater than 5 mph (8 km/h), the Enhanced Warning System (BeltAlert) will alert the driver to buckle their seat belt. The driver should also instruct all other occupants to buckle their seat belts. Once the warning is triggered, the Enhanced Warning System (BeltAlert) will continue to chime and flash the Seat Belt Warning Light for 96 seconds or until the driver's seat belt is buckled. The Enhanced Warning System (BeltAlert) will be reactivated if the driver's seat belt is unbuckled for more than 10 seconds and the vehicle speed is greater than 5 mph (8 km/h).

The Enhanced Warning System (BeltAlert) can be enabled or disabled by your authorized dealer or by following these steps:

**NOTE:** The following steps must occur within the first 60 seconds of the ignition switch being turned to the ON or START position. DaimlerChrysler Corporation does not recommend deactivating the Enhanced Warning System (BeltAlert).

1. Turn the ignition switch to the LOCK position and buckle the driver or front passenger seat belt.
2. Turn the ignition switch to the ON position and wait for the Seat Belt Warning Light to turn off.
3. Within 60 seconds of turning the ignition switch to the ON position, unbuckle and then re-buckle the driver or front passenger seat belt at least three times within 10 seconds, ending with the seat belt buckled.

**NOTE:** Watch for the Seat Belt Warning Light to turn on while unbuckling and off while re-buckling the seat belt. It may be necessary to retract the seat belt.

4. Turn the ignition switch to the LOCK position. A single chime will sound to signify that you have successfully completed the programming.

The Enhanced Warning System (BeltAlert) can be reactivated by repeating this procedure.

**NOTE:** Although the Enhanced Warning System (BeltAlert) has been deactivated, the Seat Belt Warning Light will continue to illuminate while the driver or front passenger seat belt remains unbuckled.

### **Seat Belt Extender**

If a seat belt is too short, even when fully extended, and when the adjustable upper shoulder belt anchorage (if so equipped) is in its lowest position, your dealer can provide you with a seat belt extender. This extender

should be used only if the existing belt is not long enough. When it is not required, remove the extender, and store it.

### **WARNING!**

**Using a seat belt extender when not needed can increase the risk of injury in a collision. Only use when the seat belt is not long enough when it is worn low and snug, and in the recommended seating positions. Remove and store the extender when not needed.**

### **Seat Belts And Pregnant Women**

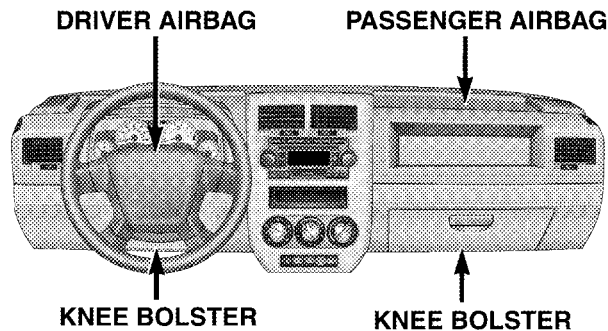
We recommend that pregnant women use the seat belts throughout their pregnancy. Keeping the mother safe is the best way to keep the baby safe.



Pregnant women should wear the lap part of the belt across the thighs and as snug across the hips as possible. Keep the belt low so that it does not come across the abdomen. That way the strong bones of the hips will take the force if there is a collision.

### **Driver and Front Passenger Supplemental Restraint System (SRS) - Airbag**

This vehicle has front airbags for both the driver and front passenger as a supplement to the seat belt restraint systems. The driver's airbag is mounted in the center of the steering wheel. The passenger's front airbag is mounted in the instrument panel, above the glove compartment. The words SRS AIRBAG are embossed on the airbag covers.



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**Front Airbags and Knee Bolsters**

**NOTE:** The front airbags are certified to the Federal regulations that allow less forceful deployment.

The front airbags have a multistage inflator design. This may allow the airbag to have different rates of inflation that are based on collision severity.

This vehicle may also be equipped with side curtain airbags to protect the driver and passengers sitting next to a window. If the vehicle is equipped with side curtain airbags, they are located above the side windows. Their covers are also labeled SRS AIRBAG.



**Side Curtain Airbag Location**

**NOTE:** Airbag covers may not be obvious in the interior trim; but they will open to allow airbag deployment.



## WARNING!

- Do not put anything on or around the front airbag covers or attempt to manually open them. You may damage the airbags and you could be injured because the airbags are no longer functional. These protective covers for the airbag cushions are designed to open only when the airbags are inflating.
- If your vehicle is equipped with side curtain airbags, do not stack luggage or other cargo up high enough to block the location of the side curtain airbag. The area where the side curtain airbag is located should remain free from any obstructions.
- If your vehicle is equipped with side curtain airbags, do not have any accessory items installed which will alter the roof, including adding a sunroof to your vehicle. Do not add roof racks that require permanent attachments (bolts or screws) for installation on the vehicle roof. Do not drill into the roof of the vehicle for any reason.
- Do not drill, cut or tamper with the knee bolster in any way.
- Do not mount any accessories to the knee bolster such as alarm lights, stereos, citizens band radios etc.

**NOTE:** Do not use a clothing bar mounted to the coat hooks in this vehicle. A clothing bar will impede the proper performance of the curtain airbags.

Along with the seat belts, front airbags work with the instrument panel knee bolsters to provide improved protection for the driver and front passenger. Side Curtain Airbags also work with seat belts to improve occupant protection.

The seat belts are designed to protect you in many types of collisions. The front airbags deploy in moderate to severe frontal collisions.

If your vehicle is so equipped, the Side Curtain Airbag on the crash side of the vehicle is triggered in moderate to severe side collisions. However, even in collisions where the airbags deploy, you need the seat belts to keep you in the correct position for the airbags to protect you properly.

**Here are some simple steps you can take to minimize the risk of harm from a deploying airbag.**

1. Children 12 years old and under should ride buckled up in the rear seat.
2. Infants in rear-facing child restraints should **NEVER** ride in the front seat of a vehicle with a passenger front airbag. An airbag deployment could cause severe injury or death to infants in that position.
3. Children that are not big enough to wear the vehicle seat belt properly (refer to information on Child Restraint in this section) should be secured in the rear seat in child restraints or belt-positioning booster seats.
4. Older children who do not use child restraints or belt-positioning booster seats should ride properly buckled up in the rear seat. Never allow children to slide the shoulder belt behind them or under their arm.
5. If a child from 1 to 12 years old must ride in the front passenger seat because the vehicle is crowded, move the seat as far back as possible, and use the proper child restraint (refer to information on Child Restraint in this section).
6. You should read the instructions provided with your child restraint to make sure that you are using it properly.
7. All occupants should use their seat belts properly.
8. The driver and front passenger seats should be moved back as far as practical to allow the airbags time to inflate.
9. If your vehicle has side curtain airbags do not lean against the door, airbags will inflate forcefully into the space between you and the door.
10. If the airbag system in this vehicle needs to be modified to accommodate a disabled person, contact the Customer Center. Phone numbers are provided in the "If You Need Customer Assistance" section in this manual.

**WARNING!**

- **Relying on the airbags alone could lead to more severe injuries in a collision. The airbags work with your seat belt to restrain you properly. In some collisions, the airbags won't deploy at all. Always wear your seat belts even though you have airbags.**
- **Being too close to the steering wheel or instrument panel during airbag deployment could cause serious injury. Airbags need room to inflate. Sit back, comfortably extending your arms to reach the steering wheel or instrument panel.**
- **If the vehicle has side curtain airbags, they also need room to inflate. Do not lean against the door or window. Sit upright in the center of the seat.**

**Air Bag System Components**

The airbag system consists of the following:

- Occupant Restraint Controller (ORC)
- Side Remote Acceleration Sensors (If Equipped)
- Airbag Warning Light
- Driver Airbag
- Front Passenger Airbag
- Supplemental Side Curtain Airbags above Side Windows (If Equipped)
- Steering Wheel and Column
- Instrument Panel
- Interconnecting Wiring
- Seatbelt Reminder Light
- Knee Impact Bolsters

- Front Acceleration Sensors
- Driver and Front Passenger Seat Belt Pretensioners

### How The Airbag System Works

- The **Occupant Restraint Controller (ORC)** determines if a frontal collision is severe enough to require the airbags to inflate. The front airbag inflators are designed to provide different rates of airbag inflation from direction provided by the ORC. This ORC will detect roll over.
- The ORC also monitors the readiness of the electronic parts of the system whenever the ignition switch is in the START or ON positions. These include all of the items listed above except the knee bolster, the instrument panel, and the steering wheel and column. If the key is in the LOCK position, in the ACC position, or not in the ignition, the airbags are not on and will not inflate.



- The ORC also turns on the Airbag Warning Light in the instrument panel for 6 to 8 seconds as a self-check when the ignition is first turned on. After the self-check, the Airbag Warning Light will turn off. If the ORC detects a malfunction in any part of the system, it turns on the Airbag Warning Light either momentarily or continuously. A single chime will sound if the light comes on again after initial start up.

### **WARNING!**

**Ignoring the AIRBAG Warning Light in your instrument panel could mean you won't have the airbags to protect you in a collision. If the light does not come on, stays on after you start the vehicle, or if it comes on as you drive, have the airbag system checked right away.**

- The **Driver and Front Passenger Airbag/Inflator Units** are located in the center of the steering wheel and the passenger side of the instrument panel. When the ORC detects a collision requiring the airbags, it signals the inflator units. A large quantity of nontoxic gas is generated to inflate the front airbags. Different airbag inflation rates may be possible based on collision severity. The steering wheel hub trim cover, and the upper passenger side of the instrument panel separate and fold out of the way, as the bags inflate to their full size. The bags fully inflate in about 50 - 70 milliseconds. This is about half of the time that it takes to blink your eyes. The bags then quickly deflate while helping to restrain the driver and front passenger. The driver's front airbag gas is vented through vent holes in the sides of the airbag. The passenger's front airbag gas is vented through vent holes in the sides of the airbag. In this way, the airbags do not interfere with your control of the vehicle.
- The **Side Impact SRS Side Curtain Airbag** are designed to activate only in certain side collisions. When the ORC (with side impact option) detects a collision requiring the side curtain airbag to inflate, it signals the inflators on the crash side of the vehicle. A quantity of nontoxic gas is generated to inflate the side curtain airbag. The inflating side curtain airbag pushes the outside edge of the headliner out of the way and covers the window. The airbag inflates in about 30 milliseconds (about one quarter of the time that it takes to blink your eyes) with enough force to injure you if you are not belted and seated properly, or if items are positioned in the area where the side curtain airbag inflates. This especially applies to children. The side curtain airbag is only about 3-1/2 inches (9 cm) thick when it is inflated.
- The **Knee Impact Bolsters** help protect the knees of the driver and the front passenger, and position everyone for the best interaction with the front airbag.

**If A Deployment Occurs**

The airbag system is designed to deploy when the ORC detects a moderate-to-severe collision, to help restrain the driver and front passenger, and then to immediately deflate.

**NOTE:** A frontal collision that is not severe enough to need airbag protection will not activate the system. This does not mean something is wrong with the airbag system.

If you do have a collision, which deploys the airbags, any or all of the following may occur:

- The nylon airbag material may sometimes cause abrasions and/or skin reddening to the driver and front passenger as the airbags deploy and unfold. The abrasions are similar to friction rope burns or those you might get sliding along a carpet or gymnasium floor. They are not caused by contact with chemicals. They are not permanent and normally heal quickly.

However, if you haven't healed significantly within a few days, or if you have any blistering, see your doctor immediately.

- As the airbags deflate, you may see some smoke-like particles. The particles are a normal by-product of the process that generates the nontoxic gas used for airbag inflation. These airborne particles may irritate the skin, eyes, nose, or throat. If you have skin or eye irritation, rinse the area with cool water. For nose or throat irritation, move to fresh air. If the irritation continues, see your doctor. If these particles settle on your clothing, follow the garment manufacturer's instructions for cleaning.
- It is not advisable to drive your vehicle after the airbags have been deployed. If you are involved in another collision, the airbags will not be in place to protect you.

### **WARNING!**

**Deployed airbags can't protect you in another collision. Have the airbags replaced by an authorized dealer as soon as possible.**

### **Enhanced Accident Response System**

In the event of an impact that causes airbag deployment, with the vehicle stopped, and the vehicle communication network intact, and the power intact, the Enhanced Accident Response System performs the following functions:

- Cuts off fuel to the engine.
- Flashes hazard lights.
- Turns on the interior lamps which remain on as long as the battery has power or until the ignition key is removed.
- Unlocks the doors automatically

### **Maintaining Your Airbag System**

### **WARNING!**

- **Modifications to any part of the airbag system could cause it to fail when you need it. You could be injured because the airbags are not there to protect you. Do not modify the components or wiring, including adding any kind of badges or stickers to the steering wheel hub trim cover or the upper passenger side of the instrument panel. Do not modify the front bumper, vehicle body structure, or frame.**
- **You need proper knee impact protection in a collision. Do not mount or locate any aftermarket equipment on or behind the knee impact bolster.**
- **It is dangerous to try to repair any part of the airbag system yourself. Be sure to tell anyone who works on your vehicle that it has airbags.**

### Airbag Warning Light



You will want to have the airbags ready to inflate for your protection in an impact. While the airbag system is designed to be maintenance free, if any of the following occurs, have an authorized dealer service the system promptly:

- The Airbag Warning Light does not come on or flickers during the 6 to 8 seconds when the ignition switch is first turned on.
- The light remains on or flickers after the 6 to 8 second interval.
- The light flickers or comes on and remains on while driving.

### Event Data Recorder (EDR)

In the event of an accident, your vehicle is designed to record up to 5 - seconds of specific vehicle data parameters (see list below) in an event data recorder prior to the moment of airbag deployment, or near-deployment, and up to a quarter second of high-speed deceleration data during and/or after air bag deployment or near-deployment. EDR data are ONLY recorded if an airbag deploys, or nearly deploys, and are otherwise unavailable.

#### NOTE:

1. A near-deployment event occurs when the airbag sensor detects severe vehicle deceleration usually indicative of a crash, but not severe enough to warrant airbag deployment.
2. Under certain circumstances, EDR data may not be recorded (e.g., loss of battery power).



In conjunction with other data gathered during a complete accident investigation, the electronic data may be used by DaimlerChrysler and others to learn more about the possible causes of crashes and associated injuries in order to assess and improve vehicle performance. In addition to crash investigations initiated by DaimlerChrysler, such investigations may be requested by customers, insurance carriers, government officials, and professional crash researchers, such as those associated with universities, and with hospital and insurance organizations.

In the event that an investigation is undertaken by DaimlerChrysler (regardless of initiative), the company or its designated representative will first obtain permission of the appropriate custodial entity for the vehicle (usually the vehicle owner or lessee) before accessing the electronic data stored, unless ordered to download data by a court with legal jurisdiction (i.e., pursuant to a warrant). A copy of the data will be provided to the

custodial entity upon request. General data that does not identify particular vehicles or crashes may be released for incorporation in aggregate crash databases, such as those maintained by the US government and various states. Data of a potentially sensitive nature, such as would identify a particular driver, vehicle, or crash, will be treated confidentially. Confidential data will not be disclosed by DaimlerChrysler to any third party except when:

1. Used for research purposes, such as to match data with a particular crash record in an aggregate database, provided confidentiality of personal data is thereafter preserved
2. Used in defense of litigation involving a DaimlerChrysler product
3. Requested by police under a legal warrant
4. Otherwise required by law

Data Parameters that May Be Recorded:

- Diagnostic trouble code(s) and warning lamp status for electronically-controlled safety systems, including the airbag system
- Airbag disable lamp status (if equipped)
- "Time" of airbag deployment (in terms of ignition cycles and vehicle mileage)
- Airbag deployment level (if applicable)
- Impact acceleration and angle
- Seatbelt status
- Brake status (service and parking brakes)
- Accelerator status (including vehicle speed)
- Engine control status (including engine speed)
- Transmission gear selection

- Cruise control status
- Traction/stability control status
- Tire pressure monitoring system status

### **Child Restraint**

Everyone in your vehicle needs to be buckled up at all times — babies and children, too. Every state in the United States and all Canadian provinces require that small children ride in proper restraint systems. This is the law, and you can be prosecuted for ignoring it.

Children 12 years and under should ride properly buckled up in a rear seat, if available. According to crash statistics, children are safer when properly restrained in the rear seats, rather than in the front.

**WARNING!**

**In a collision, an unrestrained child, even a tiny baby, can become a missile inside the vehicle. The force required to hold even an infant on your lap could become so great that you could not hold the child, no matter how strong you are. The child and others could be badly injured. Any child riding in your vehicle should be in a proper restraint for the child's size.**

**Infants And Small Children**

There are different sizes and types of restraints for children from newborn size to the child almost large enough for an adult safety belt. Always check the child seat owner's manual to ensure you have the correct seat for your child. Use the restraint that is correct for your child:

- Safety experts recommend that children ride rearward-facing in the vehicle until they are at least one year old and weigh at least 20 lbs (9 kg). Two types of child restraints can be used rearward-facing: infant carriers and "convertible" child seats. Both types of child restraints are held in the vehicle by the lap/shoulder belt or the LATCH child restraint anchorage system.
- The infant carrier is only used rearward-facing in the vehicle. It is recommended for children who weigh up to about 20 lbs (9 kg). "Convertible" child seats can be used either rearward-facing or forward-facing in the vehicle. Convertible child seats often have a higher weight limit in the rearward-facing direction than infant carriers do, so they can be used rearward-facing by children who weigh more than 9 kg (20 lbs) but are less than one year old.

- Rearward-facing child seats must **NEVER** be used in the front seat of a vehicle with a front passenger airbag. An airbag deployment could cause severe injury or death to infants in this position.
  - Children who weigh more than 20 lbs (9 kg) and who are older than one year can ride forward-facing in the vehicle. Forward-facing child seats and convertible child seats used in the forward-facing direction are for children who weigh 20 to 40 lbs (9 to 18 kg) and who are older than one year. These child seats are also held in the vehicle by the lap/shoulder belt or the LATCH child restraint anchorage system.
  - The belt-positioning booster seat is for children weighing more than 40 lbs (18 kg), but who are still too small to fit the vehicle's seat belts properly. If the child cannot sit with knees bent over the vehicle's cushion while the child's back is against the seat back; they should use a Belt Positioning Booster Seat. The child and booster seat are held in the vehicle by the lap/shoulder belt. (Some booster seats are equipped with a front shield and are held in the vehicle by the lap portion.)
- NOTE:** For additional information refer to [www.seatcheck.org](http://www.seatcheck.org).

**WARNING!**

- **Improper installation can lead to failure of an infant or child restraint. It could come loose in a collision. The child could be badly injured or killed. Follow the manufacturer's directions exactly when installing an infant or child restraint.**
- **A rearward facing child restraint should only be used in a rear seat. A rearward facing child restraint in the front seat may be struck by a deploying passenger airbag which may cause severe or fatal injury to the infant.**

**Here are some tips on getting the most out of your child restraint:**

- Before buying any restraint system, make sure that it has a label certifying that it meets all applicable Safety Standards. We also recommend that you make sure that you can install the child restraint in the vehicle where you will use it, before you buy it.
- The restraint must be appropriate for your child's weight and height. Check the label on the restraint for weight and height limits.
- Carefully follow the instructions that come with the restraint. If you install the restraint improperly, it may not work when you need it.

The passenger seat belts are equipped with either cinching latch plates or seat belt retractors that can be switched to an automatic locking mode, which are designed to keep the lap portion tight around the child

restraint so that it is not necessary to use a locking clip. If the seat belt has a cinching latch plate, pulling up on the shoulder portion of the lap/shoulder belt will tighten the belt. The cinching latch plate will keep the belt tight, however, any seat belt system will loosen with time, so check the belt occasionally and pull it tight if necessary.

If the seat belt has a switchable retractor, it will have a distinctive label. To operate the switchable retractor, please refer to Automatic-Locking Retractor (ALR) in this section.

- In the rear seat, you may have trouble tightening the lap/shoulder belt on the child restraint because the buckle or latch plate is too close to the belt path opening on the restraint. Disconnect the latch plate from the buckle and twist the short buckle end of the belt several times to shorten it. Insert the latch plate into the buckle with the release button facing out.
- If the belt still can't be tightened, or if by pulling and pushing on the restraint loosens the belt, disconnect the latch plate from the buckle, turn the latch plate around, and insert the latch plate into the buckle again. If you still can't make the child restraint secure, try a different seating position.
- Buckle the child into the seat according to the child restraint manufacturer's directions.
- When your child restraint is not in use, secure it in the vehicle with the seat belt or remove it from the vehicle. Don't leave it loose in the vehicle. In a sudden stop or collision, it could strike the occupants or seat backs and cause serious personal injury.

**Automatic-Locking Retractor (ALR)**

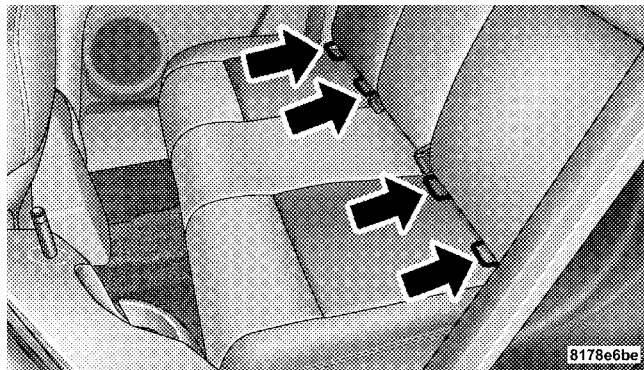
To operate the switchable retractor, pull the belt from the retractor until there is enough to allow you to pass through the child restraint and slide the latch plate into the buckle. Then pull on the belt until it is all removed from the retractor. Allow the belt to return into the retractor, pulling on the excess webbing to tighten the lap portion about the child restraint. Follow the instructions of the child restraint manufacture.

**NOTE:** To reset this feature you must let all of the belt webbing return into the retractor. You will not be able to pull out more webbing until all of the webbing has been returned back into the retractor.

**Lower Anchors and Tether for Children (LATCH)**

Your vehicle is equipped with the child restraint anchorage system called LATCH, which stands for Lower Anchors and Tether for CHildren. The LATCH system provides for the installation of the child restraint without using the vehicle seat belt. All three rear seating positions have lower anchorages that are capable of accommodating LATCH-compatible child seats having flexible, webbing-mounted lower attachments. Child seats with fixed lower attachments must be installed in the outboard positions only. Regardless of the specific type of lower attachment, **NEVER** install LATCH-compatible child seats such that two seats share a common lower anchorage. If you are installing LATCH-compatible child restraints in adjacent rear seating positions, you can use the LATCH anchors or the vehicle's seat belt for the outboard position, but you must use the vehicle's seat belt at the center position. If your child restraints are not

LATCH-compatible, you can only install the child restraints using the vehicle's seat belts. Please refer to, *Installing the Child Restraint System for typical installation instructions.*



**Rear Seat LATCH**

Child restraints systems having attachments designed to connect to the lower anchorages are now available. Child

restraints having tether straps and hooks for connection to the top tether anchorage have been available for some time. In fact, many child restraint manufacturers will provide add-on tether strap kits for some of their older products. Tether anchorage kits are also available for most older vehicles.

Because the lower anchorages are to be introduced to passenger carrying vehicles over a period of years, child restraint systems having attachments for those anchorages will continue to have features for installation in vehicles using the lap or lap/shoulder belt. They will also have tether straps, and you are urged to take advantage of all of the available attachments provided with your child restraint in any vehicle.

**NOTE:** When using the LATCH attaching system to install a child restraint, please ensure that all seat belts not being used for occupant restraints are stowed and out of reach of children. It is recommended that before



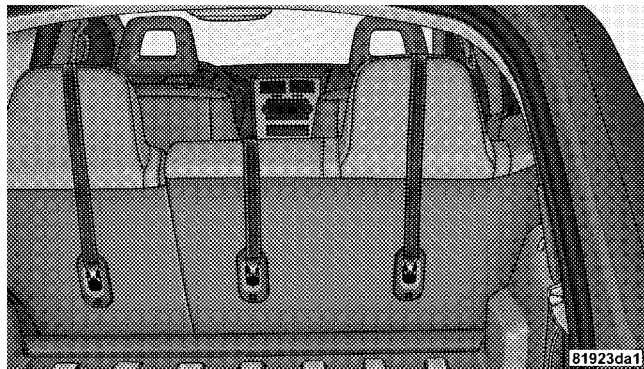
installing the child restraint, buckle the seat belt so the seat belt is tucked behind the child restraint and out of reach. If the buckled seat belt interferes with the child restraint installation, instead of tucking the seat belt behind the child restraint, route the seat belt through the child restraint belt path and then buckle it. This should stow the seat belt out of the reach of an inquisitive child. Remind all children in the vehicle that the seat belts are not toys and should not be played with, and never leave your child unattended in the vehicle.

### **Installing the Child Restraint System**

We urge that you carefully follow the directions of the manufacturer when installing your child restraint. Many, but not all, restraint systems will be equipped with separate straps on each side, with each having a hook or connector and a means for adjusting the tension in the strap. Forward-facing toddler restraints and some rearward-facing infant restraints will also be equipped with a tether strap with a hook and means for adjusting the tension in the strap.

In general, you will first loosen the adjusters on the lower and tether straps so that you can more easily attach the hook or connector to the lower and tether anchorages.

The tether strap should be routed under the center of the head restraint and attached to the tether anchor on the rear of the seat back. Then tighten all three straps as you push the child restraint rearward and downward into the seat.



Rear Seat Tether Anchors

Not all child restraint systems will be installed as we have described here. Again, carefully follow the instructions that come with the child restraint system.

**NOTE:** If your child restraint seat is not LATCH compatible, install the restraint using the vehicle seat belts.

### **WARNING!**

**An incorrectly anchored tether strap could lead to increased head motion and possible injury to the child. Use only the anchor position directly behind the child seat to secure a child restraint top tether strap.**

### **Children Too Large For Booster Seats**

Children who are large enough to wear the shoulder belt comfortably, and whose legs are long enough to bend

over the front of the seat when their back is against the seat back, should use the lap/shoulder belt in a rear seat.

- Make sure that the child is upright in the seat.
- The lap portion should be low on the hips and as snug as possible.
- Check belt fit periodically. A child's squirming or slouching can move the belt out of position.
- If the shoulder belt contacts the face or neck, move the child closer to the center of the vehicle. Never allow a child to put the shoulder belt under an arm or behind their back.

### Transporting Pets

Airbags deploying in the front seat could harm your pet. An unrestrained pet will be thrown about and possibly injured, or injure a passenger during panic braking or in a collision.

Pets should be restrained in the rear seat in pet harnesses or pet carriers that are secured by seat belts.

### ENGINE BREAK-IN RECOMMENDATIONS

A long break-in period is not required for the engine in your new vehicle.

Drive moderately during the first 300 miles (500 km). After the initial 60 miles (100 km), speeds up to 50 or 55 mph (80 or 90 km/h) are desirable.

While cruising, brief full-throttle acceleration, within the limits of local traffic laws, contributes to a good break-in. Wide open throttle acceleration in low gear can be detrimental and should be avoided.

The engine oil installed in the engine at the factory is a high quality energy conserving type lubricant. Oil changes should be consistent with anticipated climate conditions under which vehicle operations will occur. The recommended viscosity and quality grades are shown in Section 7 of this manual. **NON-DETERGENT OR STRAIGHT MINERAL OILS MUST NEVER BE USED.**

A new engine may consume some oil during its first few thousand miles (kilometers) of operation. This should be considered as a normal part of the break-in and not interpreted as an indication of difficulty.

## SAFETY TIPS

### Exhaust Gas

#### WARNING!

Exhaust gases can injure or kill. They contain carbon monoxide (CO) which is colorless and odorless. Breathing it can make you unconscious and can eventually poison you. To avoid breathing (CO) follow the safety tips below.

Do not run the engine in a closed garage or in confined areas any longer than needed to move your vehicle in or out of the area.

If it is necessary to sit in a parked vehicle with the engine running, adjust your heating or cooling controls to force outside air into the vehicle. Set the blower at high speed.

#### WARNING!

If you are required to drive with the deck lid / liftgate open, make sure that all windows are closed, and the climate control blower switch is set at high speed. DO NOT use the recirculation mode.

### Safety Checks You Should Make Inside The Vehicle

#### Seat Belts

Inspect the belt system periodically, checking for cuts, frays and loose parts. Damaged parts must be replaced immediately. Do not disassemble or modify the system.

Front seat belt assemblies must be replaced after a collision. Rear seat belt assemblies must be replaced after a collision if they have been damaged (bent retractor, torn webbing, etc. If there is any question regarding belt or retractor condition, replace the belt.

### **Airbag Light**

The light should come on and remain on for 6 to 8 seconds as a bulb check when the ignition switch is first turned ON. If the LED is not lit during starting, have it checked. If the light stays on or comes on while driving, have the system checked by an authorized dealer.

### **Defroster**

Check operation by selecting the defrost mode and place the blower control on high speed. You should be able to feel the air directed against the windshield.

## **Periodic Safety Checks You Should Make Outside The Vehicle**

### **Tires**

Examine tires for excessive tread wear or uneven wear patterns. Check for stones, nails, glass, or other objects lodged in the tread. Inspect tread and sidewall for cuts or cracks. Check wheel nuts for tightness, and tires (including spare) for proper pressure.

### **Lights**

Have someone observe the operation of exterior lights while you work the controls. Check turn signal and high beam indicator lights on the instrument panel.

### **Fluid Leaks**

Check area under vehicle after overnight parking for fuel, engine coolant, oil or other fluid leaks. Also, if gasoline fumes are detected or fuel, power steering fluid, transmission fluid or brake fluid leaks are suspected, the cause should be located and corrected immediately.



# UNDERSTANDING THE FEATURES OF YOUR VEHICLE

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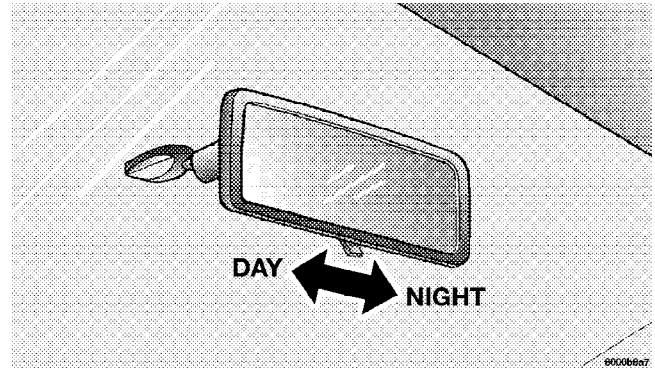
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## MIRRORS

### Inside Day/Night Mirror — If Equipped

Adjust the mirror to center on the view through the rear window. A two point pivot system allows for horizontal and vertical mirror adjustment.

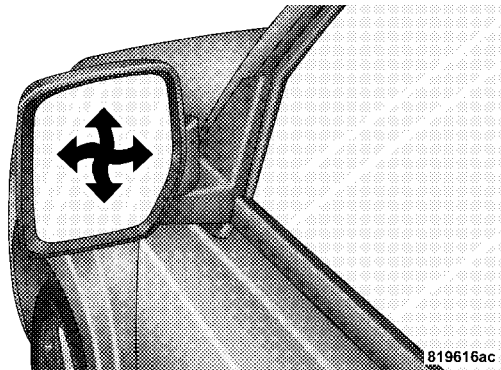
Annoying headlight glare can be reduced by moving the small control under the mirror to the night position (toward rear of vehicle). The mirror should be adjusted while set in the day position (toward windshield).



Adjusting Rear View Mirror

**Outside Mirror—Driver's Side**

Adjust the flat (Driver's Side) outside mirror to center on the adjacent lane of traffic with a slight overlap of the view obtained on the inside mirror.



**Passenger Side Mirror Directions**

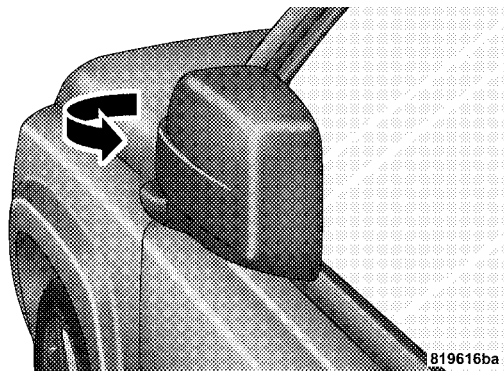
**Outside Mirror—Passenger's Side**

Adjust the convex ( Passenger's Side) outside mirror to center on the adjacent lane of traffic with a slight overlap of the view obtained on the inside mirror.

**WARNING!**

Vehicles and other objects seen in the passenger side convex mirror will look smaller and farther away than they really are. Relying too much on your passenger side mirror could cause you to collide with another vehicle or other object. Use your inside mirror when judging the size or distance of a vehicle seen in this convex mirror.

### Folding Outside Mirrors — If Equipped

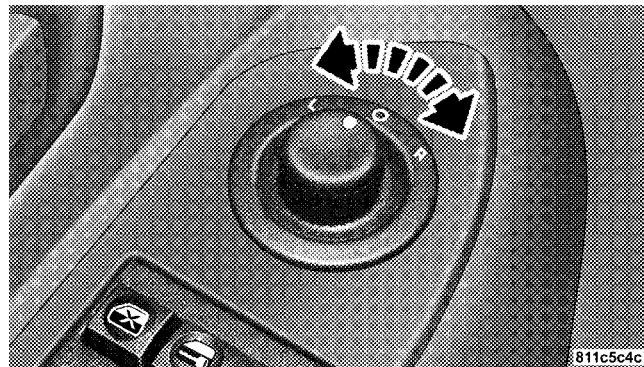


#### Folding the Outside Mirrors

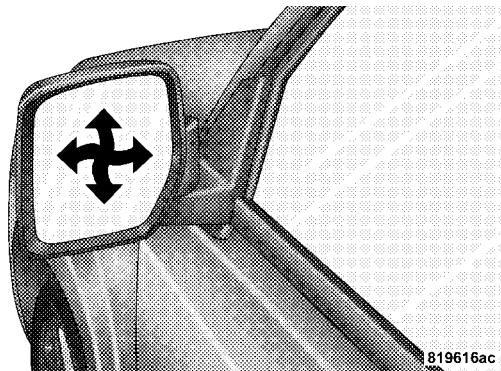
The exterior mirrors are hinged and may be moved, manually, either forward or rearward to resist damage. The hinges have three detent positions; full forward, full rearward, and normal.

### Power Remote Control Mirrors — If Equipped

The controls for the power mirrors are located on the driver's door trim panel.



#### Remote Control Mirrors Switch



Passenger Side Mirror Directions

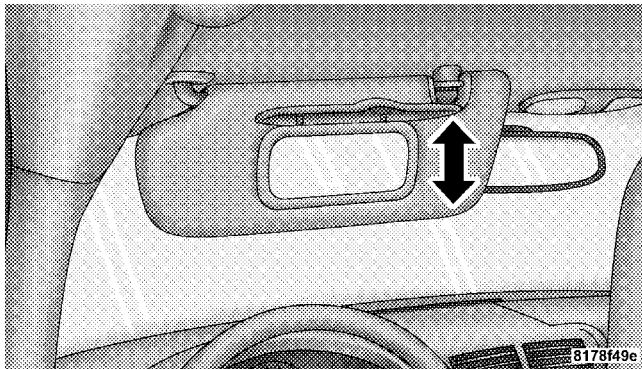
To adjust a mirror, turn the control wand toward the left or right mirror positions indicated. Tilt the control wand in the direction you want the mirror to move. When finished adjusting the mirror, turn the control to the center position to prevent accidentally moving a mirror.

#### **WARNING!**

Vehicles and other objects seen in the right side convex mirror will look smaller and farther away than they really are. Relying too much on your right side mirror could cause you to collide with another vehicle or other object. Use your inside mirror when judging the size or distance of a vehicle seen in the right side mirror.

**Vanity Mirrors — If Equipped**

To use the mirror, rotate the sun visor down and swing the mirror cover upward.



Vanity Mirror

**Sun Visor Sliding Feature**

The sun visors may be pulled out to provide extended coverage of the side glass.

**HANDS-FREE COMMUNICATION (UConnect™) — IF EQUIPPED**

UConnect™ is a voice-activated, hands-free, in-vehicle communications system. UConnect™ allows you to dial a phone number with your cellular phone using simple voice commands (e.g., "Call" ... "Mike" ... "Work" or "Dial" ... "248-555-1212"). Your cellular phone's audio is transmitted through your vehicle's audio system; the system will automatically mute your radio when using the UConnect™ system.

**NOTE:** The UConnect™ system use requires a cellular phone equipped with the Bluetooth "Hands-Free Profile," version 0.96 or higher. See UConnect™ website for supported phones.

**NOTE:** For UConnect™ customer support, visit the following web sites:

- [www.chrysler.com/uconnect](http://www.chrysler.com/uconnect)

- [www.dodge.com/uconnect](http://www.dodge.com/uconnect)
- [www.jeep.com/uconnect](http://www.jeep.com/uconnect)
- or call 1-877-855-8400

UConnect™ allows you to transfer calls between the system and your cellular phone as you enter or exit your vehicle, and enables you to mute the system's microphone for private conversation.

The UConnect™ phone book enables you to store up to 32 names and four numbers per name. Each language has a separate 32-name phone book accessible only in that language. This system is driven through your Bluetooth™ Hands-Free profile cellular phone. UConnect™ features Bluetooth™ technology - the global standard that enables different electronic devices to connect to each other without wires or a docking station, so UConnect works no matter where you stow your cellular phone (be it your purse, pocket, or briefcase), as long as

your phone is turned on and has been paired to the vehicle's UConnect™ system. The UConnect™ system allows up to seven cellular phones to be linked to system. Only one linked (or paired) cellular phone can be used with the system at a time. The system is available in English, Spanish, or French languages (as equipped).

### ***Phone Button***



The rearview mirror contains the microphone for the system (depending on the type of mirror and radio equipped), and either the radio or the mirror has the two control buttons (Phone Button and Voice Recognition Button) that will enable you to access the system.

### ***Voice Recognition Button***



Actual button location may vary with radio. The individual buttons are described in the "Operation" section.



The UConnect™ system can be used with any Hands-Free Profile certified Bluetooth™ cellular phone. See UConnect™ website for supported phones. If your cellular phone supports a different profile (e.g., Headset Profile) you may not be able to use any UConnect™ features. Refer to your cellular service provider or the phone manufacturer for details.

The UConnect™ system is fully integrated with the vehicle's audio system. The volume of the UConnect™ system can be adjusted either from the radio volume control knob or from the steering wheel radio control (right switch), if so equipped.

The radio display will be used for visual prompts from the UConnect™ system such as "CELL" or caller ID on certain radios.

### Operation

Voice commands can be used to operate the UConnect™ system and to navigate through the UConnect™ menu structure. Voice commands are required after most UConnect™ system prompts. You will be prompted for a specific command and then guided through the available options.

- Prior to giving a voice command, one must wait for the beep, which follows the "Ready" prompt or another prompt.
- For certain operations, compound commands can be used. For example, instead of saying "Setup" and then "Phone Pairing," the following compound command can be said: "Setup Phone Pairing."
- For each feature explanation in this section, only the combined form of the voice command is given. You can also break the commands into parts and say each part of the command, when you are asked for it. For

example, you can use the combined form voice command "Phonebook New Entry," or you can break the combined form command into two voice commands: "Phonebook" and "New Entry." Please remember, the UConnect™ system works best when you talk in a normal conversational tone, as if speaking to some one sitting eight feet away from you.

### **Voice Command Tree**

Refer to "Voice Tree" at the end of this section.

### **Help Command**

If you need assistance at any prompt, or if you want to know your options at any prompt, say "Help" following the beep. The UConnect™ system will play all the options at any prompt if you ask for help.

To activate the UConnect™ system from idle, simply press the "Phone" button and follow audible prompts for directions. All UConnect™ system sessions begin with a press of the "Phone" button on the radio control head.

### **Cancel Command**

At any prompt, after the beep, you can say "Cancel" and you will be returned to the main menu. However, in a few instances the system will take you back to the previous menu.

### **Pair (Link) UConnect™ System to a Cellular Phone**

To begin using your UConnect™ system, you must pair your compatible Bluetooth™ enabled cellular phone.

To complete the pairing process, you will need to reference your cellular phone owner's manual. The UConnect™ website may also provide detailed instructions for pairing.

The following are general phone to UConnect™ System pairing instructions:

- Press the "Phone" button to begin.
- After the "Ready" prompt and the following beep, say "Setup Phone Pairing."

- When prompted, after the beep, say "Pair a Phone" and follow the audible prompts.
- You will be asked to say a four-digit pin number, which you will later need to enter into your cellular. You can enter any four-digit pin number. You will not need to remember this pin number after the initial pairing process.
- For identification purposes, you will be prompted to give the UConnect™ system a name for your cellular phone. Each cellular phone that is paired should be given a unique phone name.
- You will then be asked to give your cellular phone a priority level between 1 and 7, 1 being the highest priority. You can pair up to seven cellular phones to your UConnect™ system. However, at any given time, only one cellular phone can be in use, connected to your UConnect™ System. The priority allows the UConnect™ system to know which cellular phone to

use if multiple cellular phones are in the vehicle at the same time. For example, if priority 3 and priority 5 phones are present in the vehicle, the UConnect™ system will use the priority 3 cellular phone when you make a call. You can select to use a lower priority cellular phone at any time (refer to "Advanced Phone Connectivity").

### Dial by Saying a Number

- Press the "Phone" button to begin.
- After the "Ready" prompt and the following beep, say "Dial."
- System will prompt you to say the number you want call.
- For example, you can say "234-567-8901." The phone number that you enter must be of valid length and combination. Based on the country in which the vehicle was purchased, the UConnect™ limits the user

from dialing invalid combination of numbers. For example, in USA, 234-567-890 is nine digits long, which is not a valid USA phone number - the closest valid phone number has ten digits.

- The UConnect™ system will confirm the phone number and then dial. The number will appear in the display of certain radios.

### **Call by Saying a Name**

- Press the “Phone” button to begin.
- After the “Ready” prompt and the following beep, say “Call.”
- System will prompt you to say the name of the person you want call.
- After the “Ready” prompt and the following beep, say the name of the person you want to call. For example, you can say “John Doe,” where John Doe is a previously

stored name entry in the UConnect™ phone book. Refer to “Add Names to Your UConnect™ Phonebook,” to learn how to store a name in the phone book.

- The UConnect™ system will confirm the name and then dial the corresponding phone number, which may appear in the display of certain radios.

### **Add Names to Your UConnect™ Phonebook**

**NOTE:** Adding names to phone book is recommended when vehicle is not in motion.

- Press the “Phone” button to begin.
- After the “Ready” prompt and the following beep, say “Phonebook New Entry.”
- When prompted, say the name of the new entry. Use of long names helps the voice recognition and it is recommended. For example, say “Robert Smith” or “Robert” instead of “Bob.”

- When prompted, enter the number designation (e.g., "Home," "Work," "Mobile," or "Pager"). This will allow you to store multiple numbers for each phone book entry, if desired.
- When prompted, recite the phone number for the phone book entry that you are adding.

After you are finished adding an entry into the phone book, you will be given the opportunity to add more phone numbers to the current entry or to return to the main menu.

The UConnect™ system will allow you to enter up to 32 names in the phone book with each name having up to four associated phone numbers and designations. Each language has a separate 32-name phone book accessible only in that language.

### Phonebook Download

UConnect™ allows the user to download entries from their phone via Bluetooth. To use this feature, press the "Phone" button and say "Phonebook Download." System prompts "Ready to accept vcard entry via Bluetooth..." The system is now ready to accept phonebook entries from your phone using the Bluetooth Object Exchange Profile (OBEX). Please see your phone owners' manual for specific instructions on how to send these entries from your phone.

#### NOTE:

- Phone handset must support Bluetooth OBEX transfers of phonebook entries to use this feature.
- Some phones cannot send phonebook entries if they are already connected to any system via Bluetooth,

and you may see a message on the phone display that the Bluetooth link is busy. In this case, the user must first disconnect or drop the Bluetooth connection to the UConnect™ and then send the address book entry via Bluetooth. Please see your phone owners' manual for specific instructions on how to drop the Bluetooth connection.

- If the phonebook entry is longer than 24 characters it will be use only the first 24 characters.

### **Edit Entries in the UConnect™ Phonebook**

**NOTE:** Editing names in the phone book is recommended when vehicle is not in motion.

- Press the "Phone" button to begin.
- After the "Ready" prompt and the following beep, say "Phonebook Edit."

- You will then be asked for the name of the phone book entry that you wish to edit.
- Next, choose the number designation (home, work, mobile, or pager) that you wish to edit.
- When prompted, recite the new phone number for the phone book entry that you are editing.

After you are finished editing an entry in the phone book, you will be given the opportunities to edit another entry in the phonebook, call the number you just edited, or return to the main menu.

"Phonebook Edit" can be used to add another phone number to a name entry that already exists in the phonebook. For example, the entry John Doe may have a mobile and a home number, but you can add John Doe's work number later using the "Phonebook Edit" feature.

### Delete Entries in the UConnect™ Phonebook

**NOTE:** Editing phone book entries is recommended when vehicle is not in motion.

- Press the “Phone” button to begin.
- After the “Ready” prompt and the following beep, say “Phonebook Delete.”
- After you enter the Phonebook Delete menu, you will then be asked for the name of the entry that you wish to delete. You can either say the name of a phone book entry that you wish to delete or you can say “List Names” to hear a list of the entries in the phone book from which you choose. To select one of the entries from the list, press the “Voice Recognition” button while the UConnect™ system is playing the desired entry and say “Delete.”
- After you enter the name, the UConnect™ system will ask you which designation you wish to delete, home, work, mobile, pager, or all. Say the designation you wish to delete.

- Note that only the phone book entry in the current language is deleted.

### Delete All Entries in the UConnect™ Phonebook

- Press the “Phone” button to begin.
- After the “Ready” prompt and the following beep, say “Phonebook Erase All.”
- The UConnect™ system will ask you to verify that you wish to delete all the entries from the phonebook.
- After confirmation, the phone book entries will be deleted.
- Note that only the phone book in the current language is deleted.

**List All Names in the UConnect™ Phonebook**

- Press the "Phone" button to begin.
- After the "Ready" prompt and the following beep, say "Phonebook List Names."
- The UConnect™ system will play the names of all the phone book entries.
- To call one of the names in the list, press the "Voice Recognition" button during the playing of the desired name, and say "Call."

**NOTE:** The user can also exercise "Edit" or "Delete" operations at this point.

- The UConnect™ system will then prompt you as to the number designation you wish to call.
- The selected number will be dialed.

**Phone Call Features**

The following features can be accessed through the UConnect™ system if the feature(s) are available on your cellular service plan. For example, if your cellular service plan provides three-way calling, this feature can be accessed through the UConnect™ system. Check with your cellular service provider for the features that you have.

**Answer or Reject an Incoming Call - No Call Currently in Progress**

When you receive a call on your cellular phone, the UConnect™ system will interrupt the vehicle audio system, if on, and will ask if you would like to answer the call. Press 'Phone' button to accept the call. To reject the call, press and hold the 'Phone' button until you hear a single beep indicating that the incoming call was rejected.



**Answer or Reject an Incoming Call - Call Currently in Progress**

If a call is currently in progress and you have another incoming call, you will hear the same network tones for call waiting that you normally hear when using your cell phone. Press the 'Phone' button to place the current call on hold and answer the incoming call.

**NOTE:** The UConnect™ system compatible phones in market today do not support rejecting an incoming call when another call is in progress. Therefore, the user can only either answer an incoming call or ignore it.

**Making a Second Call while Current Call in Progress**

To make a second call while you are currently in a call, press the 'Voice Recognition' button and say "Dial" or "Call" followed by the phone number or phone book entry you wish to call. The first call will be on hold while

the second call is in progress. To go back to the first call, refer to "Toggling Between Calls." To combine two calls, refer to "Conference Call."

**Place/Retrieve a Call from Hold**

To put a call on hold, press the 'Phone' button until you hear a single beep. This indicates that the call is on hold. To bring the call back from hold, press and hold the "Phone" button until you hear a single beep.

**Toggling Between Calls**

If two calls are in progress (one active and one on hold), press the "Phone" button until you hear a single beep indicating that the active and hold status of the two calls have switched. Only one call can be placed on hold at one time.

**Conference Call**

When two calls are in progress (one active and one on hold), press and hold the “Phone” button until you hear a double beep indicating that the two calls have been joined into one conference call.

**Three-Way Calling**

To initiate three-way calling, press the “Voice Recognition” button while a call is in progress and make a second phone call as described under “Making a Second Call while Current Call in Progress.” After the second call has established, press and hold the “Phone” button until you hear a double beep indicating that the two calls have been joined into one conference call.

**Call Termination**

To end a call in progress, momentarily press the “Phone” button. Only the active call(s) will be terminated and if

there is a call on hold, it will become the new active call. If the active call is terminated by the far end, a call on hold may not become active automatically. This is cell phone dependent. To bring the call back from hold, press and hold the “Phone” button until you hear a single beep.

**Redial**

- Press the “Phone” button to begin.
- After the “Ready” prompt and the following beep, say “Redial.”
- The UConnect™ system will call the last number that was dialed on your cellular phone.

**NOTE:** This may not be the last number dialed from the UConnect™ system.

### Call Continuation

Call continuation is progression of a phone call on UConnect™ system after the vehicle ignition key has been switched to off. Call continuation functionality available on the vehicle can be any one of three types:

- After ignition key is switched off, a call can continue on the UConnect™ system either until the call ends or until the vehicle battery condition dictates cessation of the call on the UConnect™ system and transfer of the call to the mobile phone.
- After ignition key is switched to off, a call can continue on the UConnect™ system for certain duration, after which the call is automatically transferred from the UConnect™ system to the mobile phone.
- An active call is automatically transferred to the mobile phone after ignition key is switched to off.

### UConnect™ System Features

#### Language Selection

To change the language that the UConnect™ system is using,

- Press the “Phone” button to begin.
- After the “Ready” prompt and the following beep, say the name of the language you wish to switch to (English, Espanol, or Francais, if so equipped).
- Continue to follow the system prompts to complete language selection.

After selecting one of the languages, all prompts and voice commands will be in that language.

**NOTE:** After every UConnect™ language change operation, only the language specific 32-name phone book is usable. The paired phone name is not language specific and usable across all languages.

**Emergency Assistance**

If you are in an emergency and the mobile phone is reachable:

- Pick up the phone and manually dial the emergency number for your area.

If the phone is not reachable and the UConnect™ system is operational, you may reach the emergency number as follows:

- Press the “Phone” button to begin.
- After the “Ready” prompt and the following beep, say “Emergency” and the UConnect™ system will instruct the paired cellular phone to call the emergency number. This feature is only supported in the USA.

**NOTE:** The emergency number dialed is based on the Country where the vehicle is purchased (911 for USA and Canada and 060 for Mexico). The number dialed may not be applicable with the available cellular service and area.

The UConnect™ system does slightly lower your chances of successfully making a phone call as to that for the cell phone directly.

Your phone must be turned on and paired to the UConnect™ system to allow use of this vehicle feature in emergency situations when the cell phone has network coverage and stays paired to the UConnect™ system.

**Towing Assistance**

If you need towing assistance,

- Press the “Phone” button to begin.
- After the “Ready” prompt and the following beep, say “Towing Assistance.”

**NOTE:** The Towing Assistance number dialed is based on the Country where the vehicle is purchased (1-800-528-2069 for USA, 1-877-213-4525 for Canada, 55-14-3454 for Mexico City and 1-800-712-3040 for outside Mexico City in Mexico).

Please refer to the 24-Hour “Towing Assistance” coverage details in the Warranty information booklet and on the 24-Hour Towing Assistance Card.

**Paging**

To learn how to page refer to “Working with Automated Systems.” Paging works properly except for pagers of certain companies which time-out a little too soon to work properly with the UConnect™ system.

**Voice Mail Calling**

To learn how to access your voice mail, refer to “Working with Automated Systems.”

**Working with Automated Systems**

This method is designed to be used in instances where one generally has to press numbers on the cellular phone keypad while navigating through an automated telephone system.

You can use your UConnect™ system to access a voice-mail system or an automated service, such as, paging service or automated customer service. Some services require immediate response selection, in some instances, that may be too quick for use of UConnect™ system.

When calling a number with your UConnect™ system that normally requires you to enter in a touch-tone sequence on your cellular phone keypad, you can push the “Voice Recognition” button and say the sequence you wish to enter followed by the word “Send.” For example, if required to enter your pin number followed with a pound 3 7 4 6 #, you can press the “Voice Recognition” button and say “3 7 4 6 # Send.” Saying a number, or sequence of numbers, followed by “Send” is also to be used to navigate through an automated customer service center menu structure and to leave a number on a pager.

You can also send stored UConnect™ phonebook entries as tones for fast and easy access to voicemail and pager

entries. To use this feature, dial the number you wish to call and then press the “Voice Recognition” button and say “Send.” The system will prompt you to enter the name or number, say the name of the phonebook entry you wish to send. The UConnect™ will then send the corresponding phone number associated with the phonebook entry as tones over the phone.

**NOTE:**

- You may not hear all of the tones due to cellular phone network configurations, this is normal.
- Some paging and voicemail systems have system timeout settings too short that may not allow the use of this feature.

**Barge In - Overriding Prompts**

The “Voice Recognition” button can be used when you wish to skip part of a prompt and issue your voice recognition command immediately. For example, if a prompt is playing “Would you like to pair a phone, clear

a...,” you could press the “Voice Recognition” button and say “Pair a Phone” to select that option without having to listen to the rest of the voice prompt.

**Turning Confirmation Prompts On/Off**

Turning confirmation prompts off will stop the system from confirming your choices (e.g., the UConnect™ system will not repeat a phone number before you dial it).

- Press the “Phone” button to begin.
- After the “Ready” prompt and the following beep, say “Setup Confirmations.” The UConnect™ system will play the current confirmation prompt status and you will be given the choice to change it.

**Phone and Network Status Indicators**

If available on the radio and/or on a premium display such as the instrument panel cluster, and supported by your cell phone, the UConnect™ system will provide

notification to inform you of your phone and network status when you are attempting to make a phone call using UConnect™. The status is given for roaming, network signal strength, phone battery strength, etc.

### Dialing Using the Cellular Phone Keypad

You can dial a phone number with your cellular phone keypad and still use the UConnect™ system (while dialing via the cell phone keypad, the user must exercise caution and take precautionary safety measures). By dialing a number with your paired Bluetooth™ cellular phone, the audio will be played through your vehicle's audio system. The UConnect™ system will work the same as if you dial the number using voice recognition.

**NOTE:** Certain brands of mobile phones do not send the dial ring to the UConnect™ system to play it on the vehicle audio system, so you will not hear it. Under this situation, after successfully dialing a number, the user

may feel that the call did not go through even though the call is in progress. Once your call is answered, you will hear the audio.

### Mute/Un-Mute (Mute Off)

When you mute the UConnect™ system, you will still be able to hear the conversation coming from the other party, but the other party will not be able to hear you. In order to mute the UConnect™ system:

- Press the “Voice Recognition” button.
- Following the beep, say “Mute.”

In order to un-mute the UConnect™ system:

- Press the “Voice Recognition” button.
- Following the beep, say “Mute-off.”

## Advanced Phone Connectivity

### Transfer Call to and from Cellular Phone

The UConnect™ system allows on going calls to be transferred from your cellular phone to the UConnect™ system without terminating the call. To transfer an ongoing call from your UConnect™ paired cellular phone to the UConnect™ system or vice-versa, press the "Voice Recognition" button and say "Transfer Call."

### Connect or Disconnect Link Between the UConnect™ System and Cellular Phone

Your cellular phone can be paired with many different electronic devices, but can only be actively "connected" with one electronic device at a time.

If you would like to connect or disconnect the Bluetooth™ connection between a UConnect™ paired cellular phone and the UConnect™ system, then follow the instruction described in your cellular phone user's manual.

### List Paired Cellular Phone Names

- Press the "Phone" button to begin.
- After the "Ready" prompt and the following beep, say "Setup Phone Pairing."
- When prompted, say "List Phones."
- The UConnect™ system will play the phone names of all paired cellular phones in order from the highest to the lowest priority. To "select" or "delete" a paired phone being announced, press the "Voice Recognition" button and say "Select" or "Delete." Also, see the next two sections for an alternate way to "select" or "delete" a paired phone.

### Select another Cellular Phone

This feature allows you to select and start using another phone with the UConnect™ system. The phone must have been previously paired to the UConnect™ system that you want to use it with.



- Press the “Phone” button to begin.
- After the “Ready” prompt and the following beep, say “Setup Select Phone” and follow the prompts.
- You can also press the “Voice Recognition” button anytime while the list is being played, and then choose the phone that you wish to select.
- The selected phone will be used for the next phone call. If the selected phone is not available, the UConnect™ system will return to using the highest priority phone present in or near (approximately within 30 feet) the vehicle.

### **Delete UConnect™ Paired Cellular Phones**

- Press the “Phone” button to begin.
- After the “Ready” prompt and the following beep, say “Setup Phone Pairing.”

- At the next prompt, say “Delete” and follow the prompts.
- You can also press the “Voice Recognition” button anytime while the list is being played, and then choose the phone you wish to delete.

### **Things You Should Know About Your UConnect™ System**

#### **UConnect™ Tutorial**

To hear a brief tutorial of the system features, press the “Phone” button and say “UConnect™ Tutorial.”

#### **Voice Training**

For users experiencing difficulty with the system recognizing their voice commands or numbers, the UConnect™ system Voice Training feature may be used. To enter this training mode, follow one of the two procedures:

From outside the UConnect™ mode (e.g. from radio mode)

- Press and hold the “Voice Recognition” button for 5 seconds until the session begins, or,
- Press the “Voice Recognition” button and say “Setup, Voice Training” command.

Repeat the words and phrases when prompted by the UConnect™ system. For best results, the Voice Training session should be completed when the vehicle is parked, engine running, all windows closed, and the blower fan switched off.

This procedure may be repeated with a new user. The system will adapt to the last trained voice only.

To restore the Voice Recognition system to factory default settings, enter the Voice Training session via the above procedure and follow the prompts.

### **Voice Recognition (VR)**

- For best performance, adjust the rear view mirror to provide at least ½ inch (1 cm) gap between the overhead console (if equipped) and the mirror.
- Always wait for the beep before speaking.
- Speak normally, without pausing, just as you would speak to a person sitting approximately eight (8) feet away from you.
- Make sure that no one other than you is speaking during a voice recognition period.
- Performance is maximized under:
  - low-to-medium blower setting,
  - low-to-medium vehicle speed,
  - low road noise,
  - smooth road surface,

- fully closed windows,
- dry weather condition.
- Even though the system is designed for users speaking in North American English, French, and Spanish accents, the system may not always work for some.
- When navigating through an automated system, such as voice mail, or when sending a page, at the end of speaking the digit string, make sure to say "Send."
- Storing names in phone book when vehicle is not in motion is recommended.
- It is not recommended to store similar sounding names in the UConnect™ phone book.
- UConnect™ phone book nametag recognition rate is optimized for the person who stored the name in the phone book.

- You can say "O" (letter "O") for "0" (zero). "800" must be spoken "eight-zero-zero."
- Even though international dialing for most number combinations is supported, some shortcut dialing number combinations may not be supported.
- In a convertible vehicle, system performance may be compromised with the convertible top down.

### **Far End Audio Performance**

- Audio quality is maximized under:
  - low-to-medium blower setting,
  - low-to-medium vehicle speed,
  - low road noise,
  - smooth road surface,
  - fully closed windows, and

- dry weather condition.
- operation from driver seat.
- Performance, such as audio clarity, echo, and loudness to a large degree rely on the phone and network, and not the UConnect™ system.
- Echo at far end can sometime be reduced by lowering the in-vehicle audio volume.
- In a convertible vehicle, system performance may be compromised with the convertible top down.

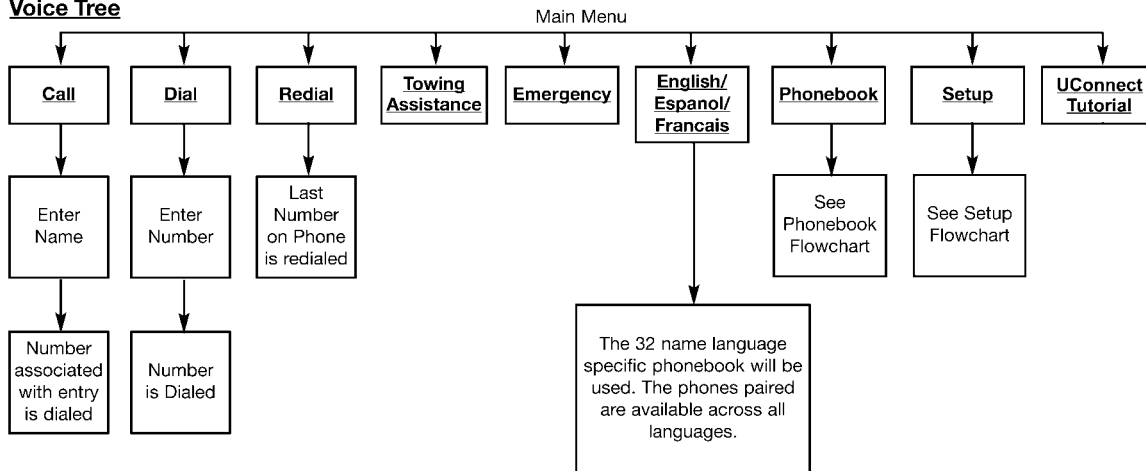
### **Bluetooth Communication Link**

Cellular phones have been found to lose connection to the UConnect™ system. When this happens, the connection can generally be re-established by switching the phone off/on. Your cell phone is recommended to remain in Bluetooth "on" mode.

### **Power-Up**

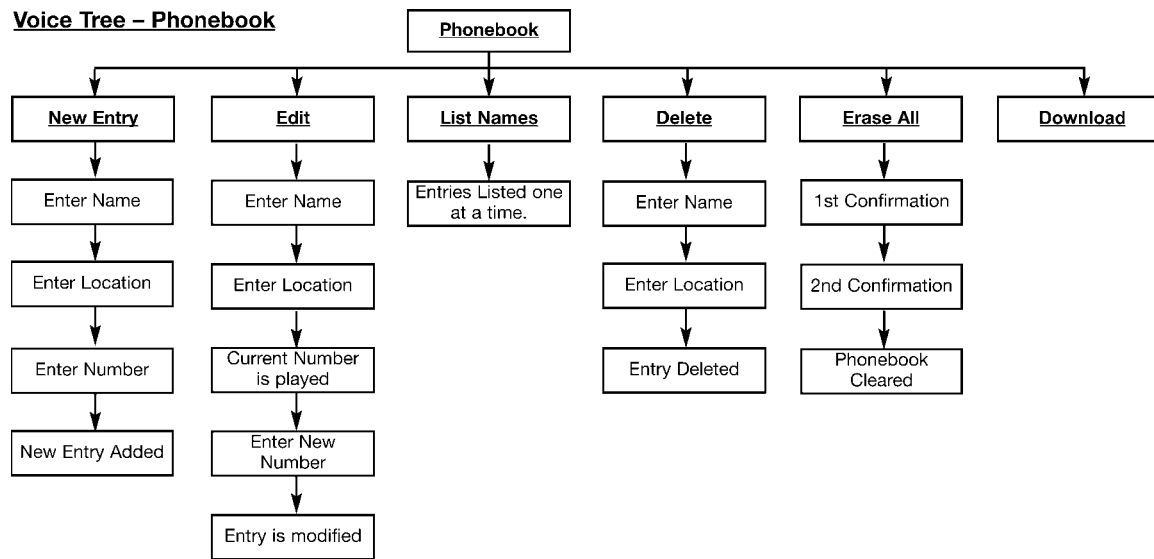
After switching the ignition key from OFF to either ON or ACC position, or after a language change, you must wait at least five (5) seconds prior to using the system.

**Voice Tree**



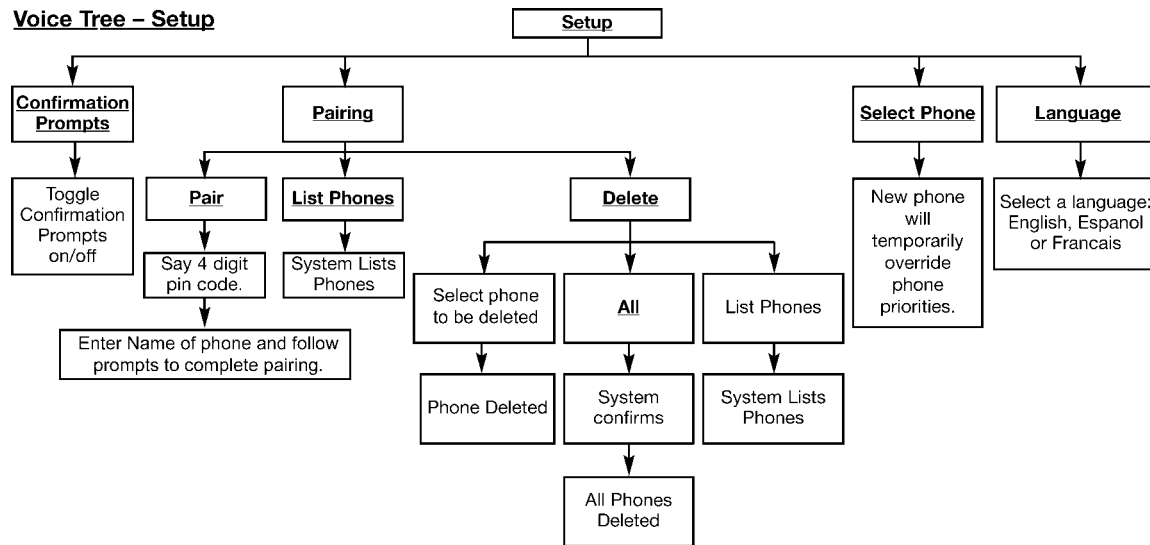
**Note:** Available Voice commands are shown in bold face and are underlined.

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**Voice Tree – Phonebook**

**Note:** Available Voice commands are shown in bold face and are underlined.

### Voice Tree – Setup



Note: Available Voice commands are shown in bold face and are underlined.

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Voice Commands	
Primary	Alternate(s)
zero	
one	
two	
three	
four	
five	
six	
seven	
eight	
nine	
star (*)	
plus (+)	
pound (#)	
add location	
all	

Voice Commands	
Primary	Alternate(s)
call	
cancel	
confirmation prompts.	
continue	
delete	
dial	
download	
edit	
emergency	
English	
erase all	
Espanol	
Francais	
help	
home	



Voice Commands	
Primary	Alternate(s)
language	
list names	
list phones	
mobile	
mute	
mute off	
new entry	
no	
pager	
pair a phone	
phone pairing	pairing
phonebook	phone book
previous	
record again	

Voice Commands	
Primary	Alternate(s)
redial	
return to main menu	return or main menu
select phone	select
send	
set up	phone settings or phone set up
towing assistance	
transfer call	
UConnect™ Tutorial	
try again	
voice training	
work	
yes	

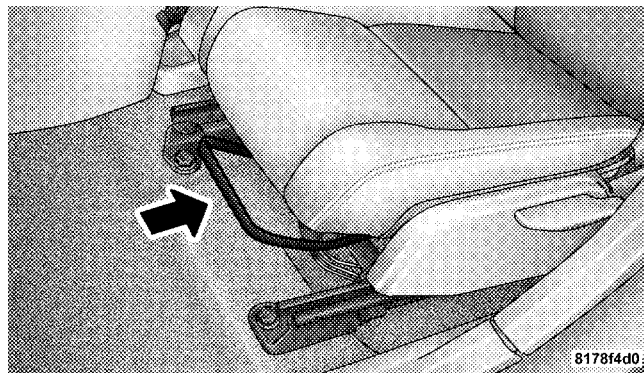
**General Information**

This device complies with part 15 of the FCC rules and RSS 210 of Industry Canada. Operation is subject to the following conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

**SEATS****Front Seat Adjustment**

The adjusting bar is at the front of the seats, near the floor. Pull the bar up to move the seat to the desired position.

**Front Seat Adjustment**

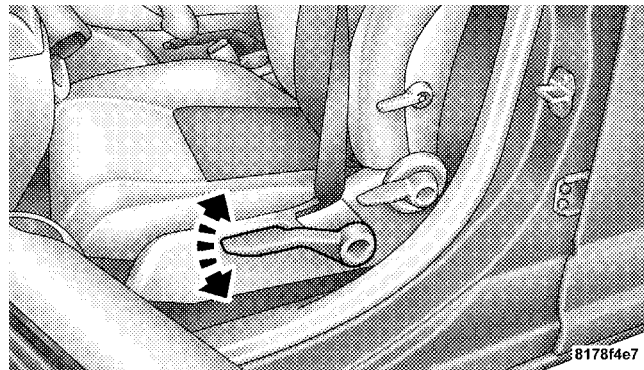
Using body pressure, move forward and rearward on the seat to be sure the seat adjusters have latched.

**WARNING!**

- Adjusting a seat while the vehicle is moving is dangerous. The sudden movement of the seat could cause you to lose control. The seat belt might not be properly adjusted and you could be injured. Adjust the seat only while the vehicle is parked.
- Do not ride with the seatback reclined so that the shoulder belt is no longer resting against your chest. In a collision you could slide under the seat belt and be seriously or even fatally injured. Use the recliner only when the vehicle is parked.

**Manual Seat Height Adjustment — If Equipped**

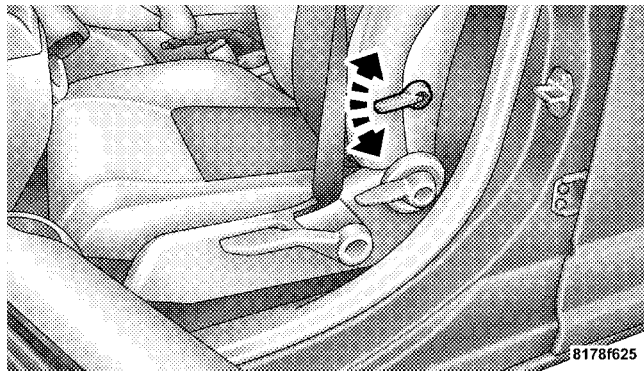
The driver's seat height can be raised or lowered by using the ratcheting handle on the outboard side of the seat to adjust the driving position.



Seat Height Adjustment

### Manual Lumbar— If Equipped

The Lumbar adjustment is located on the outboard side of the driver's seat. To increase or decrease support, rotate the handle up or down.

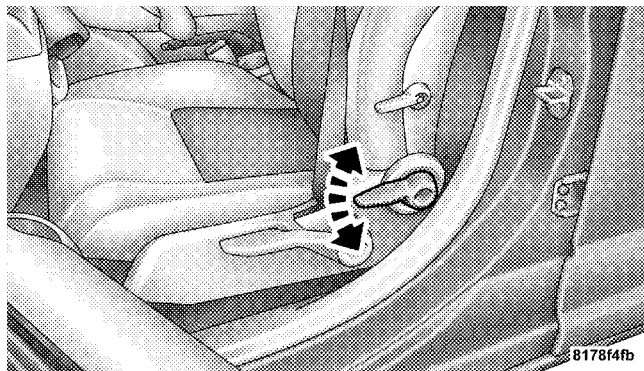


**Lumbar Adjustment**

### Driver's Seat Back Recline

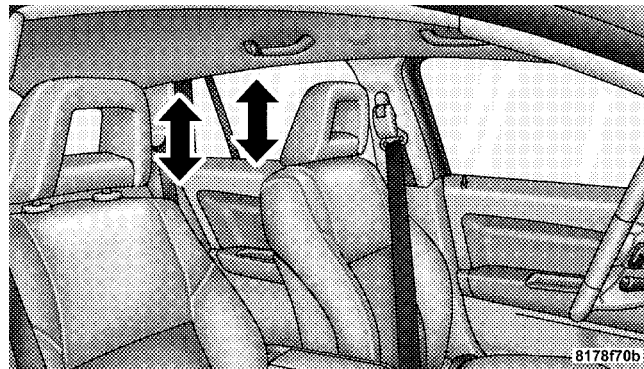
To recline:

1. Lean forward before lifting the handle, then lean back to the desired position and release the handle.
2. Lift the handle to return the seatback to an upright position.

**Reclining Seat****Adjustable Head Restraints**

Head restraints can reduce the risk of whiplash injury in the event of impact from the rear. Pull up or push down on the head restraints so that the upper edge is as high as

practical. To raise the head restraint, pull up on the head restraint. To lower the head restraint, depress the button and push down on the head restraint.

**Head Restraint Adjustment**

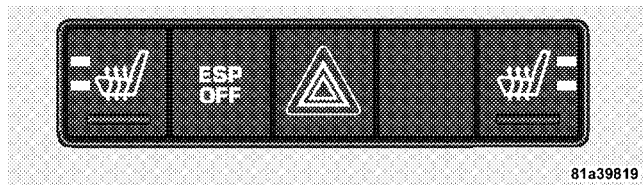
## Heated Seats — If Equipped

### WARNING!

Persons who are unable to feel pain to the skin because of advanced age, chronic illness, diabetes, spinal cord injury, medication, alcohol use, exhaustion or other physical condition must exercise care when using the seat heater. It may cause burns even at low temperatures, especially if used for long periods of time. Do not place anything on the seat that insulates against heat, such as a blanket or cushion. This may cause the seat heater to overheat.

This feature heats the front driver's and passenger's seats. The controls for the heater is located on the instrument panel, below the radio. After turning on the

ignition, you may choose OFF, HIGH, or LOW heat settings. An indicator on the switch shows which setting has been chosen.



### Heated Seat Switches

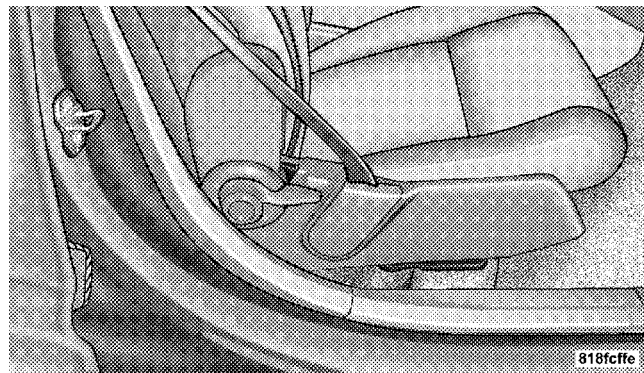


- Pressing the switch once will select high-level heating.
- Pressing the switch a second time will select low-level heating. Pressing the switch a third time will shut the heating elements off.

When high-temperature heating is selected, the heaters provide a boosted heat level during the first four minutes of operation after heating is activated. The heat output then drops to the normal high-temperature level. If high-level heating is selected, the system will automatically switch to the low level after about 30 minutes of continuous operation. At that time, the number of illuminated LEDs changes from two to one, indicating the change. Operation on the low setting also turns off automatically after about 30 minutes.

**NOTE:** If the high heat setting is selected, heat will be felt within 2 to 3 minutes.

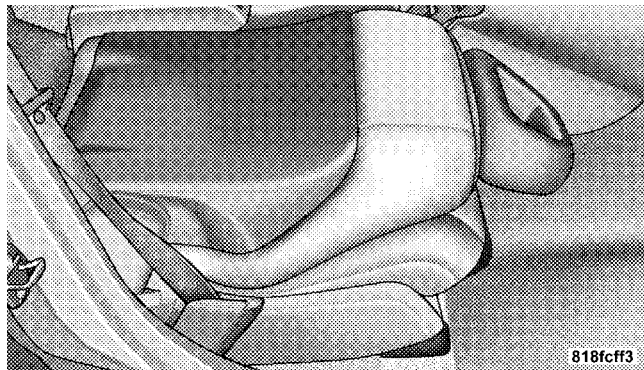
### Fold Flat Front Passenger Seat



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**Fold Flat Front Passenger Seat Control**

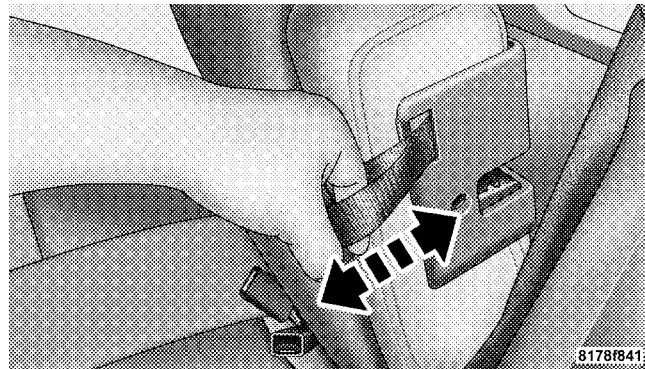




**Front Passenger Seat Folded Flat**

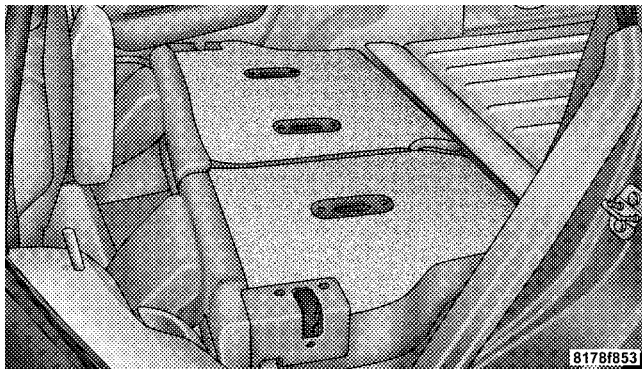
### **Folding Rear Seat**

To provide additional storage area, each rear seatback can be folded forward. Pull the strap forward to move the seat forward and flat.



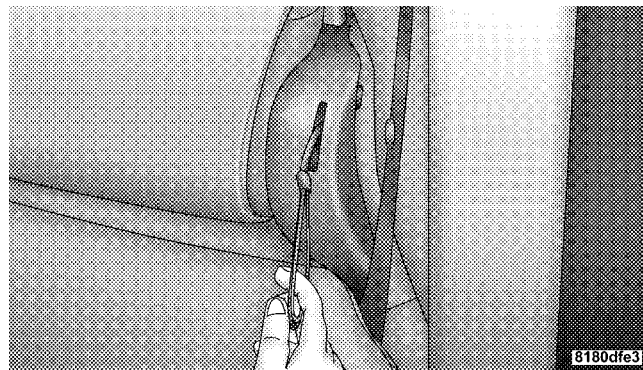
**Folding Rear Seat**





**Rear Seat Folded Flat**

### Reclining Rear Seat — If Equipped



**Rear Seat Recline Pull**



**Reclining The Rear Seat**

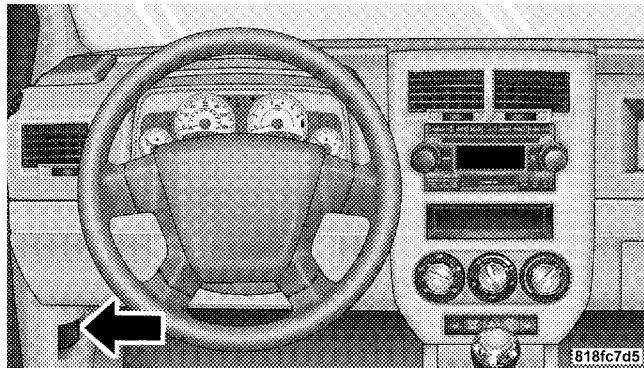
For additional comfort, pull the strap forward just enough to release the seatback latch. Then push the seatback to a reclined position, approximately 35 degrees maximum, and release the strap.

**WARNING!**

- It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a collision, people riding in these areas are more likely to be seriously injured or killed.
- Do not allow people to ride in any area of your vehicle that is not equipped with seats and seat belts
- Be sure that everyone in your vehicle is in a seat and using a seat belt properly.

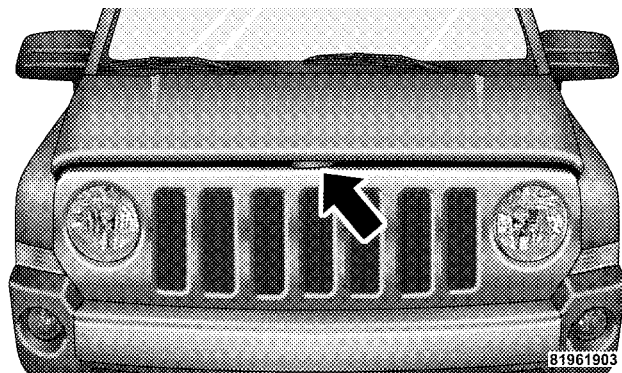
**TO OPEN AND CLOSE THE HOOD**

To open the hood, two latches must be released. First pull the hood release lever located on the left kick panel.



**Primary Hood Latch**

Then move the safety catch located under the front edge of the hood, near the center and raise the hood.

**3**

**Secondary Hood Latch**

Lift the hood prop rod, clipped to the right side (left side facing hood) of the engine compartment, to secure the hood in the open position. Place the hood prop at the location stamped into the inner hood surface.

To prevent possible damage, do not slam the hood to close it. Lower the hood until it is open approximately 20

cm (8 inches) and then drop it. This should secure both latches. Never drive your vehicle unless the hood is fully closed, with both latches engaged.

### **WARNING!**

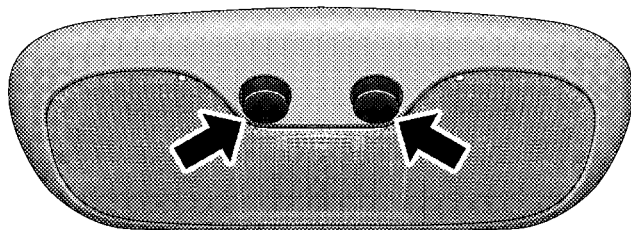
**If the hood is not fully latched it could fly up when the vehicle is moving and block your forward vision. You could have a collision. Be sure all hood latches are fully latched before driving.**

## **LIGHTS**

### **Map/Reading Lights**

These lights are mounted between the sun visors above the rear view mirror. Each light is turned ON by pressing the button. Press the button a second time to turn the

light OFF. The lights also come on when a door is opened or the dimmer control is turned fully upward, past the second detent.



**Map/Reading Lights**

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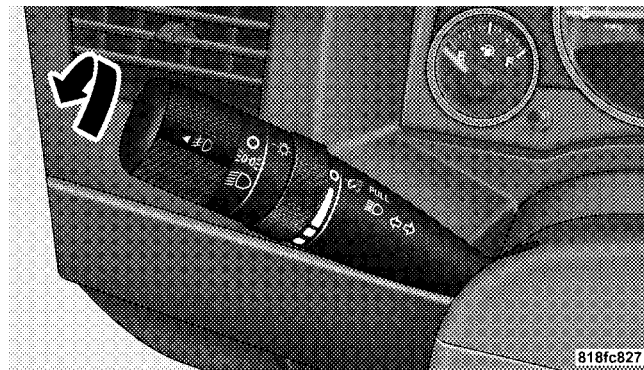
**NOTE:** The lights will remain on until the switch is pressed a second time, so be sure they have been turned off before leaving the vehicle. They will not turn off automatically.

### Multi-Function Control Lever

The Multi-Function Control Lever controls the operation of the headlights, parking lights, turn signals, headlight beam selection, instrument panel light dimming, interior lights, the passing lights, and fog lights. The lever is located on the left side of the steering column.

### Headlights, Parking Lights, Instrument Panel Lights

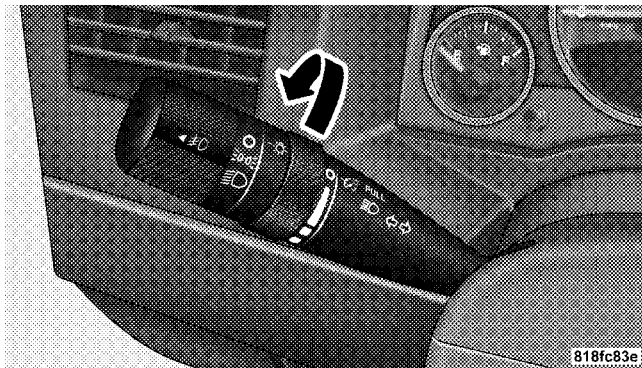
Turn the end of the Multi-Function Control Lever to the first detent for parking light operation. Turn to the second detent for headlight operation.



Headlight Control



To change the brightness of the instrument panel lights, rotate the center portion of the Multi-Function Control Lever up or down.



**Dimmer Control**

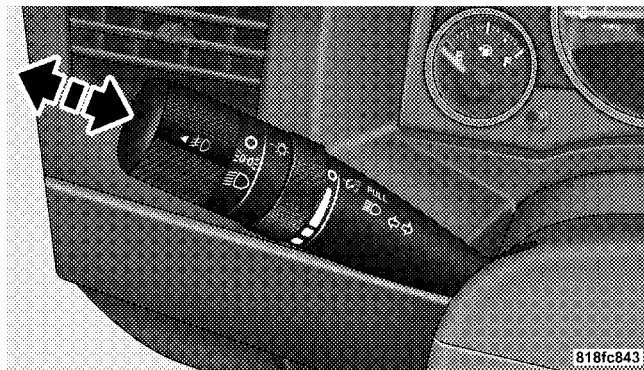
### **Daytime Running Lights (DRL) — If Equipped**

The high beam lights will come on as Daytime Running Lights (DRL) at DRL intensity (lower), whenever the ignition is on, the engine is running, the headlight switch is off, the parking brake is off, the turn signal is off, and the gear shift is in any position except park.

### **Lights-On Reminder**

If the headlights or parking lights are on after the ignition is turned OFF, a chime will sound to alert the driver when the driver's door is opened.

## Fog Lights — If Equipped

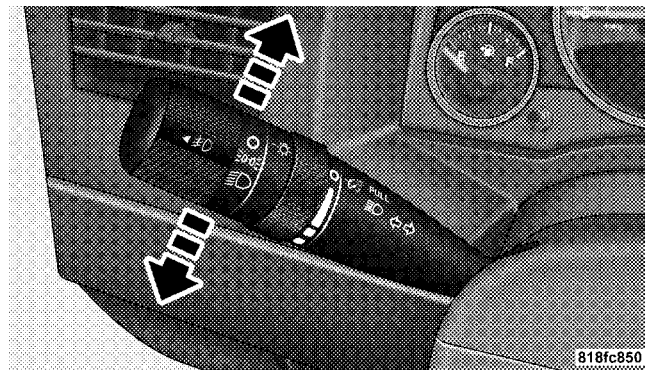


Front Fog Lights Control

**#D** The front fog light switch is on the Multi-Function Control Lever. To activate the front fog lights, turn on the parking lights or the low beam headlights and pull out the end of the control lever.

**NOTE:** The fog lights will only operate with the headlights on low beam. Selecting high beam headlights will turn off the fog lights.

## Turn Signals



Turn Signal Control

Move the Multi-Function Control Lever up or down and the arrows on each side of the instrument cluster flash to

show proper operation of the front and rear turn signal lights. You can signal a lane change by moving the lever partially up or down without moving beyond the detent.

If either light remains on and does not flash, or there is a very fast flash rate, check for a defective outside light bulb. If an indicator fails to light when the lever is moved, it would suggest that the fuse or indicator bulb is defective.

### Highbeam/Lowbeam Select Switch



#### High Beam Control

Push the Multi-Function Control Lever away from you to switch the headlights to HIGH beam. Pull the Lever toward you, to switch the headlights back to Low beam.



### Passing Light

You can signal another vehicle with your headlights by lightly pulling the Multi-Function Control Lever toward you. This will cause the headlights to turn on at high beam and remain on until the lever is released.

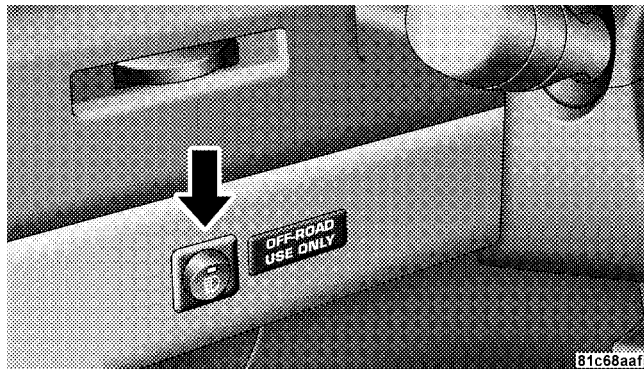
**NOTE:** If the Multi-Function Control Lever is held in the flash to pass position for more than 15 seconds, the high beams will shut off. If this occurs, wait 30 seconds for the next flash to pass operation.

### Off-Road lights – If equipped

#### CAUTION!

The auxiliary lights mounted on the front bumper should be illuminated during “Off-Road Use Only”. Having them illuminated on public streets, highways, roads, etc. may be illegal in your state. Your state may also require auxiliary lights to be covered when operating your vehicle on public streets, highways, roads, etc. Further illuminating these lights with supplied covers installed could cause permanent damage to the lamps or covers. Before using these auxiliary lights, contact your State Authorities for proper operation and use of these lights.

The auxiliary Off-Road lights can be turned on by pressing the top of the switch when Off-Road conditions require additional lighting. To turn off the auxiliary lights press the bottom of the switch.



**Off-Road Light Switch**

## **WINDSHIELD WIPERS AND WASHERS**

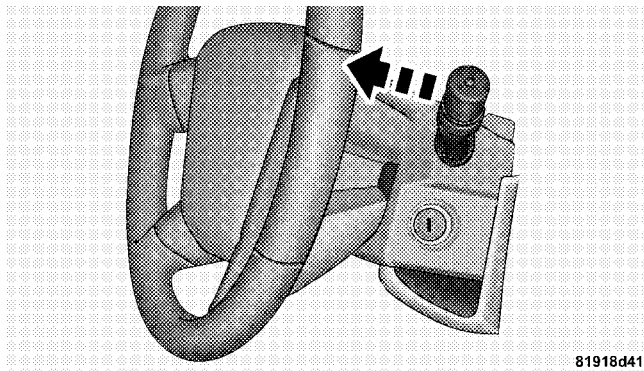


The wipers and washers are operated by a switch on the control lever. The lever is located on the right side of the steering column.

### **Windshield Washers**

To use the washer, pull the control lever toward you and hold while spray is desired. If the lever is pulled while in the delay range, the wiper will operate in low speed for two wipe cycles after the lever is released, and then resume the intermittent interval previously selected.

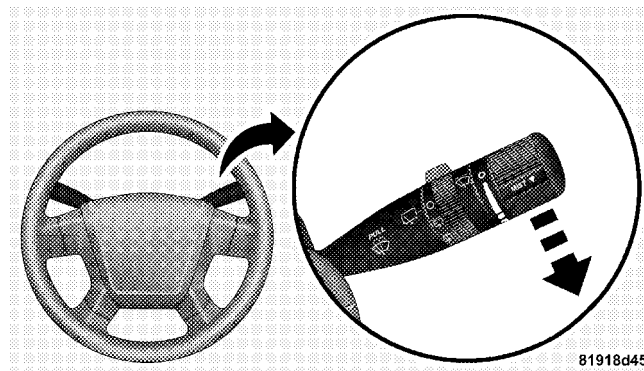
If the lever is pulled while in the OFF position, the wipers will operate for two wipe cycles, then turn OFF.



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**Rear Washer control****Mist Feature**

Push down on the wiper control lever to activate a single wipe to clear the windshield of road mist or spray from a passing vehicle. As long as the lever is held down, the wipers will continue to operate.



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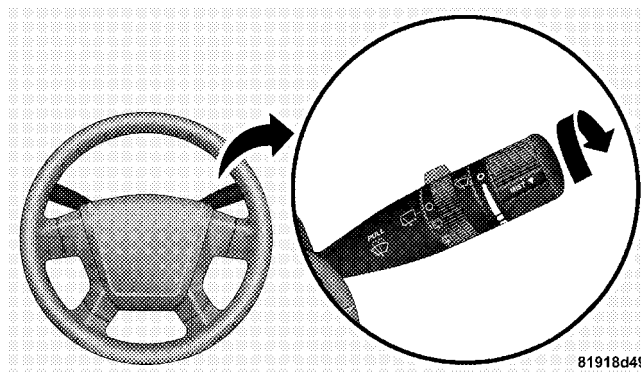
**Mist Control**

**CAUTION!**

In cold weather, always turn off the wiper switch and allow the wipers to return to the park position before turning off the engine. If the wiper switch is left on and the wipers freeze to the windshield, damage to the wiper motor may occur when the vehicle is restarted.

**Windshield Wiper Operation**

Turn the end of the handle to select the desired wiper speed.

**Wiper Control****Intermittent Wiper System**

Use the intermittent wiper when weather conditions make a single wiping cycle, with a variable pause between cycles, desirable. Select the delay interval by turning the end of the lever. Rotate the knob upward (clockwise) to decrease the delay time and downward

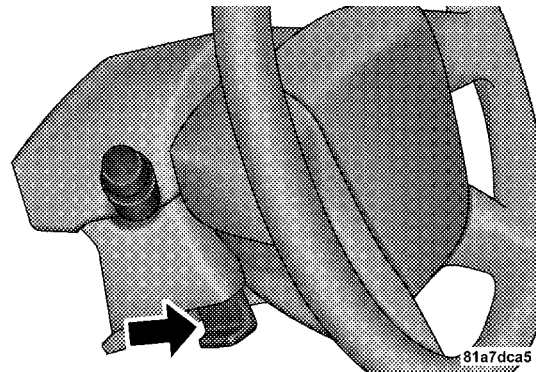
(counterclockwise) to increase the delay time. The delay can be regulated from a maximum of approximately 18 seconds between cycles, to a cycle every second.

### **Adding Washer Fluid**

The fluid reservoir for the windshield washers and the rear window washer (If Equipped) is shared. It is located in the front of the engine compartment on the passenger side and should be checked for fluid level at regular intervals. Fill the reservoir with windshield washer solvent (not radiator antifreeze) and operate the system for a few seconds to flush out the residual water.

### **TILT STEERING COLUMN**

To tilt the steering column, push down on the lever below the turn signal control lever. With one hand firmly on the wheel, move the steering column up or down as desired. Push the lever back up to lock the column firmly in place.



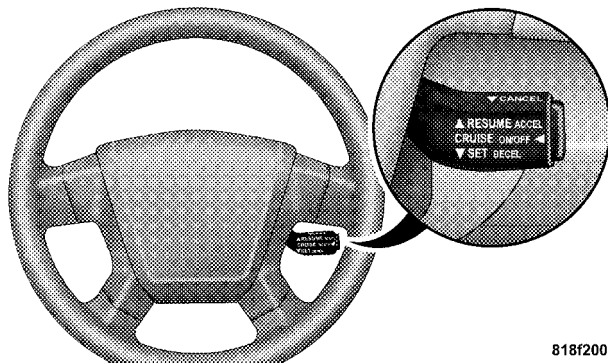
**Tilting Steering Column Control**

**WARNING!**

Tilting the steering column while the vehicle is moving is dangerous. Without a stable steering column, you could lose control of the vehicle and have an accident. Adjust the column only while the vehicle is stopped. Be sure it is locked before driving.

**ELECTRONIC SPEED CONTROL — IF EQUIPPED**

When engaged, this device takes over the accelerator operation at speeds greater than 25 mph (40 km/h). The speed control lever is located on the right side of the steering wheel.



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**Speed Control Location****To Activate**

Push the ON/OFF button. The CRUISE indicator in the instrument cluster will illuminate. To turn the system OFF, push the ON/OFF button a second time. The CRUISE indicator will turn off. The system should be turned OFF when not in use.

**WARNING!**

**Leaving the Electronic Speed Control system on when not in use is dangerous. You could accidentally set the system or cause it to go faster than you want. You could lose control and have an accident. Always leave the system OFF when you are not using it.**

**To Set At A Desired Speed**

When the vehicle has reached the desired speed, press down on the lever and release. Release the accelerator and the vehicle will operate at the selected speed.

**NOTE:** The vehicle should be traveling at a steady speed and on level ground before pressing the SET lever.

**To Deactivate**

A soft tap on the brake pedal, pulling the speed control lever towards you “CANCEL”, or normal brake or clutch pressure while slowing the vehicle will deactivate speed control without erasing the set speed memory. Pressing the ON/OFF button or turning off the ignition switch erases the set speed memory.

**To Resume Speed**

To resume a previously set speed, push the “RESUME ACCEL” lever up and release. Resume can be used at any speed above 20 mph (32 km/h).

**To Vary The Speed Setting**

When the speed control is ON, speed can be increased by pushing up and holding “RESUME ACCEL”. Release the lever when the desired speed is reached, and the new speed will be set.

Tapping “RESUME ACCEL” once will result in a 1 mph (1.6 km/h) speed increase. Each time the lever is tapped, speed increases so that tapping the lever three times will increase speed by 3 mph (4.8 km/h), etc.

To decrease speed while speed control is ON, push down and hold “SET DECEL”. Release the lever when the desired speed is reached, and the new speed will be set.

Tapping the “SET DECEL” button once will result in a 1 mph (1.6 km/h) speed decrease. Each time the button is tapped, speed decreases.

### **Manual Transaxle**

Depressing the clutch pedal will disengage the speed control. A slight increase in engine RPM before the speed control disengages is normal.

Vehicles equipped with manual transaxles may need to be shifted into a lower gear to climb hills without speed loss.

### **WARNING!**

**Speed Control can be dangerous where the system can't maintain a constant speed. Your vehicle could go too fast for the conditions, and you could lose control. An accident could be the result. Don't use Speed Control in heavy traffic or on roads that are winding, icy, snow-covered, or slippery.**

### **To Accelerate For Passing**

Depress the accelerator as you would normally. When the pedal is released, the vehicle will return to the set speed.

### **Using Speed Control On Hills**

**NOTE:** The speed control system maintains speed up and down hills. A slight speed change on moderate hills is normal.



On steep hills a greater speed loss or gain may occur so it may be preferable to drive without speed control.

### **ANTI-LOCK BRAKE SYSTEM (ABS) – IF EQUIPPED**

This system aids the driver in maintaining vehicle control under adverse braking conditions. The system controls hydraulic brake pressure to prevent wheel lockup and help avoid skidding on slippery surfaces during braking.

**NOTE:** ABS improves steering control of the vehicle during hard braking maneuvers.

#### **WARNING!**

- Anti-lock system (ABS) cannot prevent the natural laws of physics from acting on the vehicle, nor can it increase braking or steering efficiency beyond that afforded by the condition of the vehicle brakes and tires or the traction afforded.
- The ABS cannot prevent accidents, including those resulting from excessive speed in turns, following another vehicle too closely, or hydroplaning. Only a safe, attentive, and skillful driver can prevent accidents.
- The capabilities of an ABS equipped vehicle must never be exploited in a reckless or dangerous manner which could jeopardize the user's safety or the safety of others.

**ELECTRONIC BRAKE CONTROL SYSTEM –  
ABS/TCS/BAS/ERM/HDC/ESP**

Your vehicle may be equipped with an optional advanced electronic brake control system that includes Anti-Lock Brake System (ABS), Traction Control System (TCS), Brake Assist System (BAS), Electronic Roll Mitigation (ERM), Hill Descent Control (HDC) and Electronic Stability Program (ESP). All systems work together to enhance vehicle stability and control in various driving conditions and are commonly referred to as ESP.

**Anti-Lock Brake System – ABS**

This system aids the driver in maintaining vehicle control under adverse braking conditions. The system controls hydraulic brake pressure to prevent wheel lockup and help avoid skidding on slippery surfaces during braking. Refer to “Anti-Lock Brake System” in this Section of the manual for more information about ABS.

**Traction Control System (TCS)**

This system monitors the amount of wheel spin of each of the driven wheels. If wheel spin is detected, brake pressure is applied to the slipping wheel(s) and engine power is reduced to provide enhanced acceleration and stability. A feature of the TCS system functions similar to a limited slip differential and controls the wheel spin across a driven axle. If one wheel on a driven axle is spinning faster than the other, the system will apply the brake of the spinning wheel. This will allow more engine torque to be applied to the wheel that is not spinning. This feature remains active even if TCS and ESP are in either the “Partial Off” or “ESP Off” modes. Refer to “Electronic Stability Program (ESP)” in this Section of this manual.

### Brake Assist System (BAS)

The BAS is designed to optimize the vehicle's braking capability during emergency braking maneuvers. The system detects an emergency braking situation by sensing the rate and amount of brake application and then applies optimum pressure to the brakes. This can help reduce braking distances. The BAS complements the Anti-Lock Brake System (ABS). Applying the brakes very quickly results in the best BAS assistance. To receive the benefit of the system, you must apply continuous braking pressure during the stopping sequence. Do not reduce brake pedal pressure unless braking is no longer desired. Once the brake pedal is released, the BAS is deactivated.

#### WARNING!

- **BAS cannot prevent the natural laws of physics from acting on the vehicle, nor can it increase braking efficiency beyond that afforded by the condition of the vehicle brakes and tires or the traction afforded.**
- **The BAS cannot prevent accidents, including those resulting from excessive speed in turns, following another vehicle too closely, or hydroplaning. Only a safe, attentive, and skillful driver can prevent accidents.**
- **The capabilities of a BAS-equipped vehicle must never be exploited in a reckless or dangerous manner which could jeopardize the user's safety or the safety of others.**

**Electronic Roll Mitigation (ERM)**

This system anticipates the potential for wheel lift by monitoring the driver's steering wheel input and the speed of the vehicle. When ERM determines that the rate of change of the steering wheel angle and vehicles speed are sufficient to potentially cause wheel lift, it applies the appropriate brake and may reduce engine power to lessen the chance that wheel lift will occur. ERM will only intervene during very severe or evasive driving maneuvers.

ERM can only reduce the chance of wheel lift occurring during severe or evasive driving maneuvers. It can not prevent wheel lift due to other factors such as road conditions, leaving the roadway or striking objects or other vehicles.

**WARNING!**

**Many factors, such as vehicle loading, road conditions and driving conditions, influence the chance that wheel lift or rollover may occur. ERM can not prevent all wheel lift or rollovers, especially those that involve leaving the roadway or striking objects or other vehicles. Only a safe, attentive, and skillful driver can prevent accidents. The capabilities of an ERM equipped vehicle must never be exploited in a reckless or dangerous manner which could jeopardize the user's safety or the safety of others.**

**Hill Descent Control (HDC) – If Equipped**

This system maintains vehicle speed while descending hills during off-road driving situations. HDC will automatically apply the brakes to control downhill speed to between 4 mph (7 km/h) and 6 mph (9 km/h) depending

on terrain. The system is activated by placing the vehicle in “Off-Road” mode and placing the gear selector in “Low” or “Reverse.”



When the system is available, the HDC indicator lamp will be illuminated solid.

HDC has the capability to sense terrain and will only activate when the vehicle is descending a hill. It will not activate on level ground. If desired, HDC can be fully deactivated in by putting the vehicle into ESP “full off” mode (refer to the Electronic Stability Program (ESP) located in the “Electronic Brake Control” section of this manual). This is done by pressing and holding the ESP OFF button for 5 seconds.

HDC operation can be overridden with brake application to slow the vehicle down below the HDC control speed. Conversely, if more speed is desired during HDC control,

the accelerator pedal will increase vehicle speed like normal. When either the brake or the accelerator is released, HDC will control the vehicle back to the original set speed.

HDC is only intended for low speed off-road driving. At vehicle speeds above 31 mph (50 km/h) HDC will no longer function. If the HDC indicator lamp begins to flash it means that the brakes are getting too hot and the vehicle should be stopped to allow the brakes to cool.

### ESP (Electronic Stability Program)

This system enhances directional control and stability of the vehicle under various driving conditions. ESP corrects for over/under steering of the vehicle by applying the brake of the appropriate wheel to assist in counteracting the over/under steer condition. Engine power may also be reduced to help the vehicle maintain the desired path. ESP uses sensors in the vehicle to determine the vehicle path intended by the driver and compares it

to the actual path of the vehicle. When the actual path does not match the intended path, ESP applies the brake of the appropriate wheel to assist in counteracting the oversteer or understeer condition

- Oversteer - when the vehicle is turning more than appropriate for the steering wheel position.
- Understeer - when the vehicle is turning less than appropriate for the steering wheel position.

### **ESP/TCS Indicator Light**

The “ESP/TCS Indicator Light” located in the instrument cluster, starts to flash as soon as the tires lose traction and the ESP system becomes active. The “ESP/TCS Indicator Light” also flashes when TCS is active. If the “ESP/TCS Indicator Light” begins to flash during acceleration, ease up on the accelerator and apply as little throttle as possible. Be sure to adapt your speed and driving to the prevailing road conditions.

### **WARNING!**

- **Electronic Stability Program (ESP) cannot prevent the natural laws of physics from acting on the vehicle, nor can it increase the traction afforded by prevailing road conditions.**
- **ESP cannot prevent accidents, including those resulting from excessive speed in turns, driving on very slippery surfaces, or hydroplaning. Only a safe, attentive, and skillful driver can prevent accidents.**
- **The capabilities of an ESP-equipped vehicle must never be exploited in a reckless or dangerous manner which could jeopardize the user's safety or the safety of others.**

### **ESP 2WD Operating Modes**

All 2WD vehicles can choose the following ESP operating modes:

#### ***ESP ON***

This is the normal operating mode for ESP. Whenever the vehicle is started the ESP system will be in this mode. This mode should be used for almost all driving situations. ESP should only be turned to “Partial Off” or “ESP Off” for specific reasons as noted below.

#### ***PARTIAL ESP***

This mode is entered by momentarily depressing the “ESP Control Switch”. When in “Partial Off” mode, the TCS portion of ESP, except for the “limited slip” feature described in the TCS section, has been disabled and the “ESP/TCS Indicator Light” will be illuminated. All other stability features of ESP function normally, with the exception of engine power reduction. This mode is intended to be used if the vehicle is in deep snow, sand or

gravel conditions and more wheel spin than ESP would normally allow is required to gain traction.

To turn ESP on again, momentarily depress the “ESP Control Switch”. This will restore the normal “ESP On” mode of operation.

#### **WARNING!**

**In the Partial ESP mode, the engine torque reduction and stability features are desensitized. Therefore, the enhanced vehicle stability offered by ESP is unavailable.**

**NOTE:** To improve the vehicle’s traction when driving with snow chains, or starting off in deep snow, sand or gravel, it may be desirable to switch to the “Partial Off” mode by pressing the ESP switch. Once the situation requiring ESP to be switched to the “Partial Off” mode is

overcome, turn ESP back on by momentarily depressing the “ESP Control Switch”. This may be done while the vehicle is in motion.

### **ESP 4WD Operating Modes**

In addition to ESP ON and Partial ESP (described above in “ESP 2WD Operating Modes”), all 4WD equipped vehicles can also choose the following ESP operating mode:

#### ***ESP OFF***

This mode is intended for off-highway or off-road use when ESP stability features could inhibit vehicle maneuverability due to trail conditions. This mode is entered by depressing and holding the “ESP Control Switch” for 5 seconds when the vehicle is stopped and the engine is running. After 5 seconds, the “ESP/TCS Indicator Light” will illuminate and the “ESP Off” message will appear in the odometer. Press and release the trip odometer button located on the instrument cluster to clear this message.

In this mode, ESP and TCS, except for the “limited slip” feature described in the TCS section, are turned off until the vehicle reaches a speed of 35 mph (56 km/h). At 35 mph (56 km/h) the normal ESP stability function returns with the exception of engine power reduction. TCS remains off. When the vehicle speed drops below 30 mph (48 km/h) the ESP system shuts off. ESP is off at low vehicle speeds so that it will not interfere with off-road driving but ESP function returns to provide the stability feature at speeds above 35 mph (56 km/h). The “ESP/TCS Indicator Light” will always be illuminated when ESP is off.

#### **ESP OFF**

To turn ESP on again, momentarily depress the “ESP Control Switch”. This will restore the normal “ESP On” mode of operation.



### ESP/BAS Warning Light and ESP/TCS Indicator Light

The malfunction indicator for the ESP is combined with the BAS indicator. The yellow “ESP/BAS Warning Lamp” and the yellow “ESP/TCS Indicator Light” in the instrument cluster both come on when the ignition switch is turned to the “ON” position. They should both go out with the engine running. If the “ESP/BAS Warning Lamp” comes on continuously with the engine running, a malfunction has been detected in either the ESP or BAS system, or both. If this light remains on after several ignition cycles, and the vehicle has been driven several miles at speeds greater than 30 mph (48 km/h), see your authorized dealer as soon as possible to have the problem diagnosed and corrected.

#### WARNING!

**With the ESP switched off, the enhanced vehicle stability offered by ESP is unavailable. In an emergency evasive maneuver, the ESP system will not engage to assist in maintaining stability. “ESP Off” mode is intended for off-highway or off-road use, only.**

#### NOTE:

- The “ESP Indicator Light” and the “ESP/BAS Warning Light” come on momentarily each time the ignition switch is turned ON.
- Each time the ignition is turned ON, the ESP System will be ON even if it was turned off previously.
- The ESP Control System will make buzzing or clicking sounds when it is active. This is normal; the sounds will stop when ESP becomes inactive following the maneuver that caused the ESP activation.

**GARAGE DOOR OPENER — IF EQUIPPED**

HomeLink® replaces up to three remote controls (hand held transmitters) that operate devices such as garage door openers, motorized gates, lighting, or home security systems. The HomeLink® unit operates off of your vehicle's battery.

**NOTE:** HomeLink® is disabled when the Vehicle Theft Alarm is active.

**WARNING!**

**Your motorized door or gate will open and close while you are training the Universal Transceiver. Do not train the transceiver if people or pets are in the path of the door or gate. Only use this transceiver with a garage door opener that has a “stop and reverse” feature as required by federal safety standards. This includes most garage door opener models manufactured after 1982. Do not use a garage door opener without these safety features. Call toll-free 1-800-355-3515 or, on the Internet at [www.HomeLink.com](http://www.HomeLink.com) for safety information or assistance.**

**WARNING!**

**Vehicle exhaust contains carbon monoxide, a dangerous gas. Do not run your vehicle in the garage while training the transceiver. Exhaust gas can cause serious injury or death.**

**Programming HomeLink®****Before You Begin**

If you have not trained any of the HomeLink® buttons, erase all channels before you begin training.

To do this, press and hold the two outside buttons for 20 seconds until the red indicator flashes.

It is recommended that a new battery be placed in the hand-held transmitter of the device being programmed to HomeLink® for more efficient training and accurate transmission of the radio-frequency signal.

Your vehicle should be parked outside of the garage when programming.

1. Turn the ignition switch to the ON/RUN position.
2. Hold the battery side of the hand-held transmitter away from the HomeLink® button you wish to program.

Place the hand-held transmitter 1–3 inches (3–8 cm) away from the HomeLink® button you wish to program while keeping the indicator light in view.

3. Simultaneously press and hold both the chosen HomeLink® button and the hand-held transmitter button until the HomeLink® indicator changes from a slow to a rapidly blinking light, then release both the HomeLink® and hand-held transmitter buttons.

Watch for the HomeLink® indicator to change flash rates. When it changes, it is programmed. It may take up to 30 seconds, or longer in rare cases. The garage door may open & close while you train.

**NOTE:**

- Some gate operators and garage door openers may require you to replace Step #3 with procedures noted in the “Gate Operator/Canadian Programming” section.
  - After training a HomeLink® channel, if the garage door does not operate with HomeLink® and the garage door opener was manufactured after 1995, the garage door opener may have rolling code. If so, proceed to the heading “Programming A Rolling Code System.”
4. Press and hold the just-trained HomeLink® button and observe the indicator light.

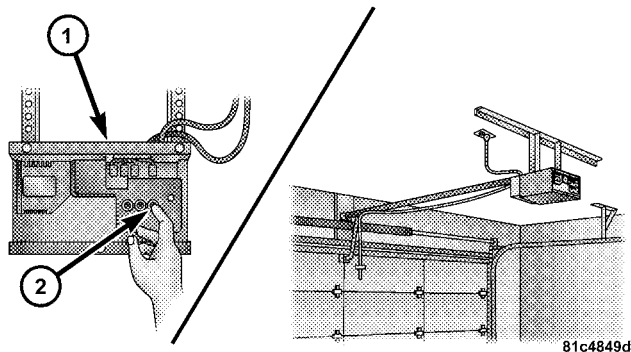
If the indicator light stays on constantly, programming is complete and the garage door (or device) should activate when the HomeLink® button is pressed.

If the indicator light blinks rapidly for two seconds, and then turns to a constant light, continue with programming for Rolling Code.

**5. PROGRAMMING A ROLLING CODE SYSTEM**

At the garage door opener motor (in the garage), locate the “learn” or “training” button.

This can usually be found where the hanging antenna wire is attached to the garage door opener motor (it is NOT the button normally used to open & close the door).



1 — Garage Door Opener  
2 — Training Button

6. Firmly press and release the “learn” or “training” button. The name and color of the button may vary by manufacturer.

**NOTE:** There are 30 seconds in which to initiate the next step after the “Learn” button has been pressed.

7. Return to the vehicle and press the programmed HomeLink® button twice (holding the button for 2 seconds each time). If the device is plugged in and activates, programming is complete.

If the device does not activate, press the button a third time (for 2 seconds) to complete the training.

If you have any problems, or require assistance, please call toll-free 1-800-355-3515 or, on the Internet at [www.HomeLink.com](http://www.HomeLink.com) for information or assistance.

To program the remaining two HomeLink® buttons, repeat each step for each remaining button. **DO NOT** erase the channels.

### Gate Operator/Canadian Programming

Canadian radio-frequency laws require transmitter signals to “time-out” (or quit) after several seconds of transmission – which may not be long enough for HomeLink® to pick up the signal during programming.

Similar to this Canadian law, some U.S. gate operators are designed to “time-out” in the same manner.

It may be helpful to unplug the device during the cycling process to prevent possible overheating of the garage door or gate motor.

If you are having difficulties programming a garage door opener or a gate operator, replace “Programming HomeLink” Step 3 with the following:

**3. Continue to press and hold the HomeLink® button while you press and release - every two seconds (“cycle”) your hand-held transmitter until HomeLink® has successfully accepted the frequency signal. The indicator light will flash slowly and then rapidly when fully trained.**

If you unplugged the device for training, plug it back in at this time.

Then proceed with Step 4 under “Programming HomeLink.” earlier in this section.

### **Using HomeLink®**

To operate, simply press and release the programmed HomeLink® button. Activation will now occur for the trained device (i.e. garage door opener, gate operator, security system, entry door lock, home/office lighting, etc. The hand-held transmitter of the device may also be used at any time.

### **Reprogramming a Single HomeLink® Button**

To re-program a channel that has been previously trained, follow these steps:

1. Turn the ignition switch to the ON/RUN position.
2. Press and hold the desired HomeLink® button until the indicator light begins to flash after 20 seconds. **Do not release the button.**

3. **Without releasing the button**, proceed with PROGRAMMING HOMELINK Step #2 and follow all remaining steps.

### Security

It is advised to erase all channels before you sell or turn in your vehicle.

To do this, press and hold the two outside buttons for 20 seconds until the red indicator flashes. Note that all channels will be erased. Individual channels cannot be erased.

The HomeLink® Universal Transceiver is disabled when the Vehicle Theft Alarm is active.

### Troubleshooting Tips

If you are having trouble programming HomeLink®, here are some of the most common solutions:

- Replace the battery in the original transmitter.

- Press the Learn Button on the Garage Door Opener to complete the training for Rolling Code.
- Did you unplug the device for training, and remember to plug it back in?

If you are have any problems, or require assistance, please call toll-free 1-800-355-3515 or, on the Internet at [www.HomeLink.com](http://www.HomeLink.com) for information or assistance.

### General Information

This device complies with FCC rules part 15 and Industry Canada RSS-210. Operation is subject to the following two conditions:

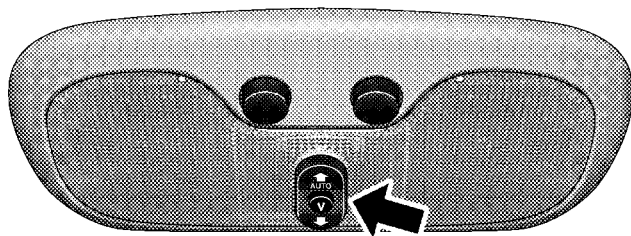
1. This device may not cause harmful interference
2. This device must accept any interference that may be received including interference that may cause undesired operation

**NOTE:** The transmitter has been tested and it complies with FCC and IC rules. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.

The term "IC:" before the certification/registration number only signifies that Industry Canada technical specifications were met.

#### **POWER SUNROOF — IF EQUIPPED**

The power sunroof switch is located in the reading lamp.



815d5564

**Power Sunroof Switch**



**WARNING!**

- Never leave children in a vehicle, with the keys in the ignition switch. Occupants, particularly unattended children, can become entrapped by the power sunroof while operating the power sunroof switch. Such entrapment may result in serious injury or death.
- In an accident, there is a greater risk of being thrown from a vehicle with an open sunroof. You could also be seriously injured or killed. Always fasten your seat belt properly and make sure all passengers are properly secured too.
- Do not allow small children to operate the sunroof. Never allow fingers or other body parts, or any object to project through the sunroof opening. Injury may result.

**Opening the Sunroof*****Manual Mode***

To open the sunroof, press and hold the switch rearward to full open. Any release of the switch will stop the movement and the sunroof will remain in a partial open condition until the switch is pushed and held rearward again.

***Express Mode***

Press the switch rearward and release, and the sunroof will open automatically from any position. The sunroof will open fully, then stop automatically. This is called Express Open. During Express Open operation, any movement of the sunroof switch will stop the sunroof.

## Closing the Sunroof

### **Manual Mode**

To close the sunroof, press and hold the switch in the forward position. Again, any release of the switch will stop the movement and the sunroof will remain in a partial close condition until the switch is pushed and held forward again. To ensure sunroof is fully closed, press and hold switch until sunroof has completely stopped moving.

### **Express Mode**

Press the switch forward and release, and the sunroof will close automatically from any position. The sunroof will close fully and stop automatically. This is called Express Close. During Express Close operation, any movement of the switch will stop the sunroof.

### **Pinch Protect Feature**

This feature will detect an obstruction in the opening of the sunroof during Express Close operation. If an obstruction in the path of the sunroof is detected, the sunroof will automatically retract. Next, press the switch forward and release to Express Close.

### **Pinch Protect Override**

If a known obstruction (ice, debris, etc.) prevents closing, press the switch forward and hold for two seconds after the reversal occurs. This allows the sunroof to move towards the close position.

**NOTE:** Pinch protection is disabled while the switch is pressed.

**Venting Sunroof – Express**

Press and hold the “V” button, and the sunroof will open to the vent position. This is called Express Vent, and will occur regardless of the sunroof position. During Express Vent operation, any movement of the switch will stop the sunroof.

**Sunshade Operation**

The sunshade can be opened manually. However, the sunshade will open automatically as the sunroof opens.

**NOTE:** The sunshade cannot be closed if the sunroof is open.

**Wind Buffeting**

Wind buffeting can be described as the perception of pressure on the ears or a helicopter type sound in the ears. Your vehicle may exhibit wind buffeting with the

windows down, or the sunroof (if equipped) in certain open or partially open positions. This is a normal occurrence and can be minimized. If the buffeting occurs with the rear windows open, open the front and rear windows together to minimize the buffeting. If the buffeting occurs with the sunroof open, adjust the sunroof opening to minimize the buffeting or open any window.

**Sunroof Maintenance**

Use only a non-abrasive cleaner and a soft cloth to clean the glass panel.

**Ignition Off Operation**

The sunroof will also operate up to 45 seconds after the ignition has been turned off. The sunroof operation will be canceled if either of the front doors are opened during the 45 second time period.

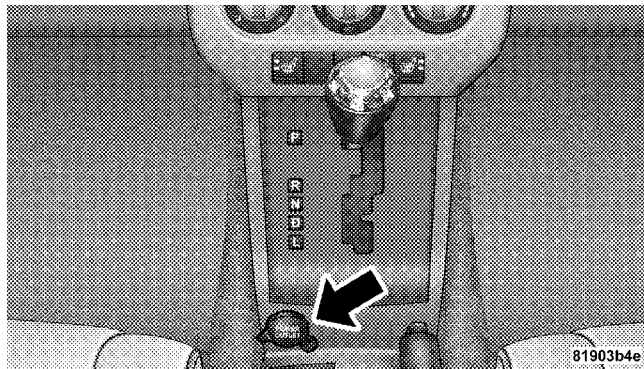
**ELECTRICAL POWER OUTLETS — IF EQUIPPED**

There is a standard 12-Volt power outlet in the instrument panel and a 115 Volt (150 Watts Maximum) power outlet in the center console on certain models for added convenience. These outlets can power cell phones, electronics and other low power devices.

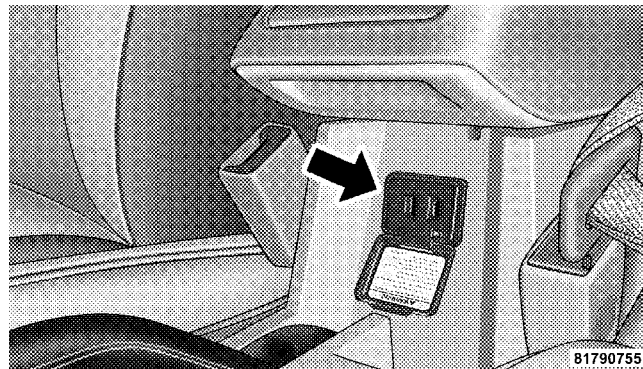
**NOTE:** Due to overload protection the inverter will shut down if the power rating is exceeded.

**WARNING!****To Avoid Serious Injury or Death:**

- **Do not use a 3 - Prong Adaptor.**
- **Do not insert any objects into the receptacles.**
- **Do not touch with wet hands.**
- **Close the lid when not in use, and while driving the vehicle**
- **If this outlet is mishandled it may cause an electric shock and failure.**



**Power Outlet 12 Volts**



**Power Outlet 115 Volts (150 Watt)**

### Electrical Outlet Use With Engine Off

#### CAUTION!

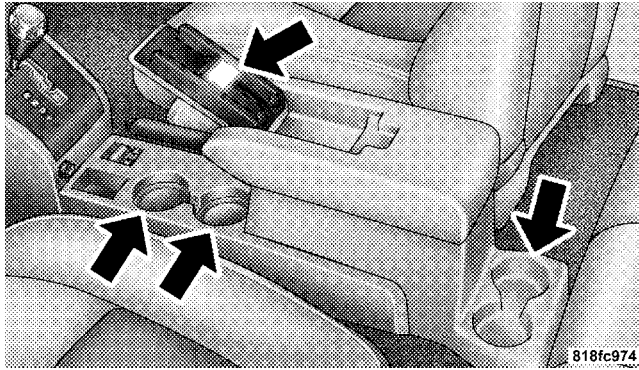
- Many accessories that can be plugged in draw power from the vehicle's battery, even when not in use (i.e. cellular phones, etc.). Eventually, if plugged in long enough, the vehicle's battery will discharge sufficiently to degrade battery life and/or prevent engine starting.
- Accessories that draw higher power (i.e. coolers, vacuum cleaners, lights, etc.); will degrade the battery even more quickly. Only use these intermittently and with greater caution.
- After the use of high power draw accessories, or long periods of the vehicle not being started (with accessories still plugged in), the vehicle must be driven a sufficient length of time to allow the generator to recharge the vehicle's battery.

### CONSOLE FEATURES

#### WARNING!

Do not operate this vehicle with the console compartment lid in the open position. Cell phones, music players, and other hand held electronic devices should be stowed while driving. Use of these devices while driving can cause an accident due to distraction, resulting in death or injury.

The floor console's sliding armrest moves forward 3 inches to accommodate shorter drivers. The armrest lid also includes a unique flip pocket for storing a phone or an MP3 player. The bin inside the console can hold up to 10 CD jewel cases or other items securely out of sight.



**Floor Console**

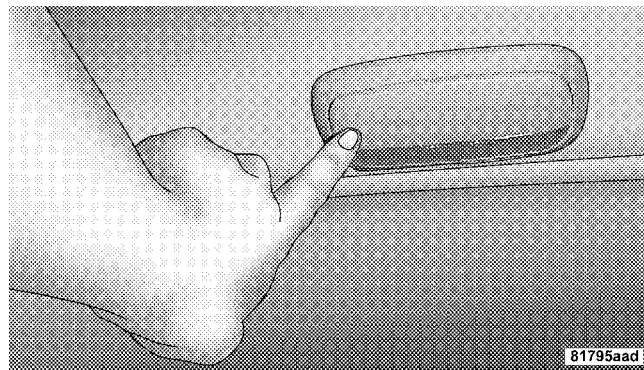
**NOTE:** The flip pocket and console lid features are intended to be used in the upright or open position only while the vehicle is parked. While driving, all handheld devices should be properly stowed, and the flip pocket and the console lid should be closed.

## **CARGO AREA FEATURES**

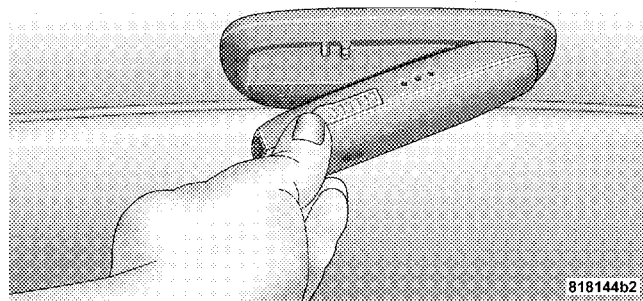
### **Cargo Light/Removable Self Recharging Flashlight – If Equipped**

The dual-function light is mounted in the headliner above the cargo area to illuminate the cargo area, and part of it snaps out of the bezel to serve as a flashlight when needed. The flashlight features two bright LED light bulbs and is powered by rechargeable lithium batteries when snapped back into place for convenience.

To operate the flashlight, press the switch once for high, twice for low, and a third time to return to off.

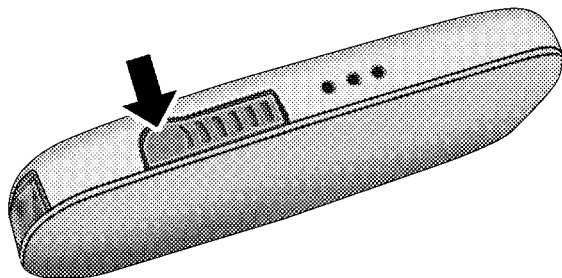


**Press and Release**



**Removing Flashlight**





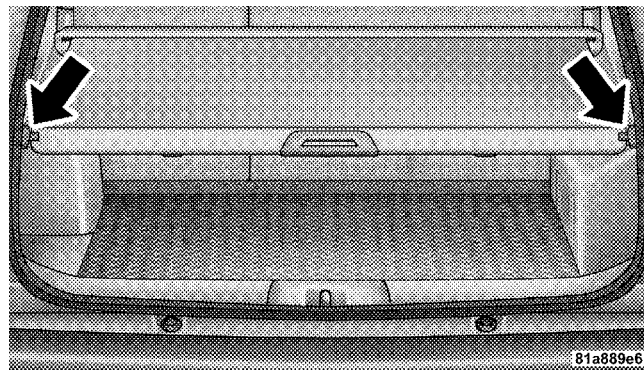
Three Press Switch

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### Retractable Cargo Area Cover — If Equipped

To cover the cargo area:

1. Grasp the center portion of the cover flap. Pull it over the cargo area.



3

Cargo Cover Extended

2. Insert the pins on the ends of the cover into the slots in the pillar trim cover.

3. The Liftgate may be opened or closed with the cargo cover in place.

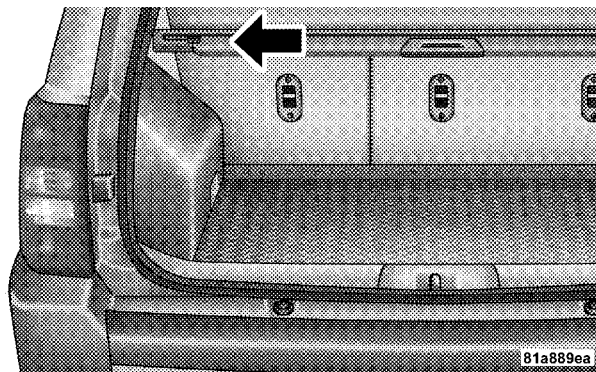
### Cargo Cover Removal

#### WARNING!

**In an accident a cargo cover loose in the vehicle could cause injury. It could fly around in a sudden stop and strike someone in the vehicle. Do not store the cargo cover on the cargo floor or in the passenger compartment. Remove the cover from the vehicle when taken from its mounting. Do not store in the vehicle.**

1. Detach the cargo area cover and allow it to retract.
2. Grasp cargo area cover assembly and push against spring tension to the left.
3. Remove right side from cargo area.

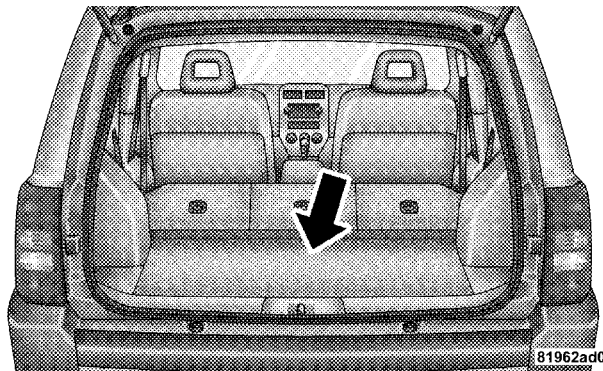
4. Remove assembly from the vehicle.



Cargo Cover Removal

### Removable Load Floor

The cargo area load floor is removable and can be washed with mild soap and water. For removal, lift the load floor with your finger at the space provided at the rear.



Removable Load Floor

### Cargo Tie-Down Loops

There are four D-rings tie-down loops in the lower trim for securing cargo. The tie-downs located on the cargo area floor should be used to safely secure loads when vehicle is moving.

#### WARNING!

- Cargo tie-down Loops are not safe anchors for a child seat tether strap. In a sudden stop or collision a loop could pull loose and allow the child seat to come loose. A child could be badly injured. Use only the anchors provided for child seat tethers.
- The weight and position of cargo and passengers can change the vehicle center of gravity and vehicle handling. To avoid loss of control resulting in personal injury, follow these guidelines for loading your vehicle:

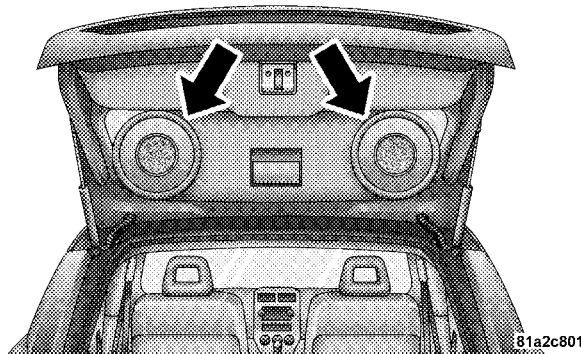
- Always place cargo evenly on the cargo floor. Put heavier objects as low and as far forward as possible.
- Place as much cargo as possible in front of the rear axle. Too much weight or improperly placed weight over or behind the rear axle can cause the rear of the vehicle to sway.
- Do not pile luggage or cargo higher than the top of the seatback. This could impair visibility or become a dangerous projectile in a sudden stop or collision.

**WARNING!**

To help protect against personal injury, passengers should not be seated in the rear cargo area. The rear cargo space is intended for load carrying purposes only, not for passengers, who should sit in seats and use seat belts.

**Fold Down Speakers – If Equipped**

When the liftgate is open, the speakers can swing down from the trim panel to face rearward, for tailgating and other activities.



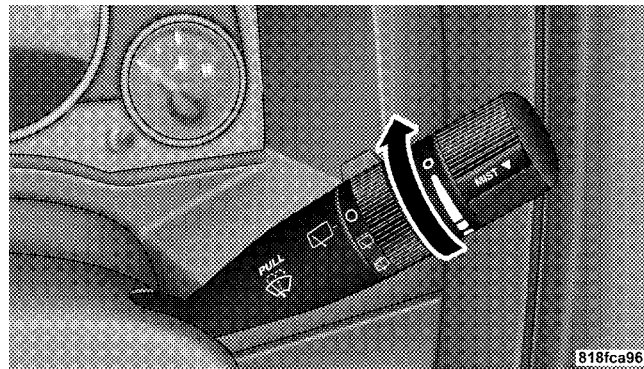
**Fold Down Speakers**

**NOTE:** Do not close the Liftgate with the fold down speakers opened. The speakers could be damaged if they come into contact with luggage stored in the cargo area.

## REAR WINDOW FEATURES

### Rear Window Wiper/Washer

A switch on the right side of the steering column controls operation of the rear wiper/washer function. Rotating the center of the switch forward to the ON position will activate the wiper. The rear wiper operates in an intermittent mode only. Rotating the center of the switch all the way forward will turn on the wash function. The wash pump will continue to operate as long as the button is pressed. Upon release, the wipers will cycle two times before returning to the set position.



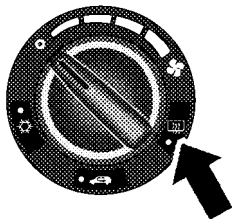
### Rear Washer Wiper Control

If the rear wiper is operating when the ignition is turned OFF, the wiper will automatically return to the “Park” position if power accessory delay is active. Power accessory delay can be cancelled by opening the door, if this happens the rear wiper will stop at its current position and will not go to park.

### Adding Washer Fluid

The fluid reservoir for the windshield washers and the rear window washer (If Equipped) is shared. It is located in the front of the engine compartment on the passenger side and should be checked for fluid level at regular intervals. Fill the reservoir with windshield washer solvent (not radiator antifreeze) and operate the system for a few seconds to flush out the residual water.

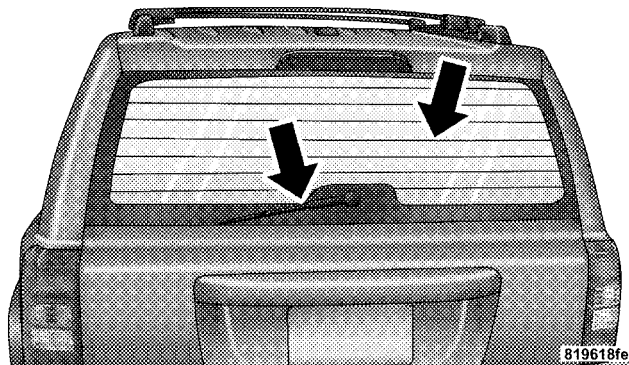
### Rear Window Defroster



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The push-button is located on the bottom right side of the blower control knob. Press this button to turn on the rear window defroster. An amber light shows that the defroster is on.

The defroster will automatically turn off after about ten minutes. For five more minutes of operation, press the switch again. To prevent excessive battery drain, use the defroster only when the engine is operating.



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Rear Wiper Heater Grid

**CAUTION!**

Use care when washing the inside of the rear window to prevent damage to heating elements. Use a soft cloth and a mild washing solution, wiping parallel to the heating elements. Also, keep all objects a safe distance from the window to prevent damaging the heating elements.

**ROOF LUGGAGE RACK — IF EQUIPPED**

External racks do not increase the total load carrying capacity of the vehicle. Be sure that the total occupant and luggage load inside the vehicle, plus the load on the luggage rack, do not exceed the rated vehicle capacity.

This vehicle is not equipped with roof rack cross rails as built, unless ordered as optional equipment. Cross rails must be installed prior to carrying loads on the roof rack. If not equipped, your authorized dealer can order and install Mopar® cross rails built specifically for this roof rack system or a number of after market rails that are tailored to your lifestyle or activities.

**NOTE:** The optional cross rails have seven specific locations identified by a feature on both the side rail and the cross rail. Cross rails must be secured in one of the seven detent locations on the side rail to prevent movement with a sudden stop. For improved wind noise performance when cross rails are not in use, place them in detent positions #2 (second detent from the front of the vehicle) and #7 (detent closest to the rear of the vehicle) as indicated with a unique feature on the side rails.



**CAUTION!**

- To prevent damage to the roof of your vehicle, **DO NOT** carry any loads on the roof rack without cross rails installed. The load should be secured and placed on top of the cross rails, not directly on the roof. If it is necessary to place the load on the roof, place a blanket or some other protection between the load and the roof surface.
- To avoid damage to the roof rack and vehicle, do not exceed the rated load capacity of your cross rail system or the roof rack system maximum load capacity of 150 lbs (68 kg). Always distribute heavy loads as evenly as possible and secure the load appropriately.
- Long loads which extend over the windshield, such as wood panels or surfboards, should be secured to both the front and rear of the vehicle.
- Travel at reduced speeds and turn corners carefully when carrying large or heavy loads on the roof rack. Wind forces, due to natural causes or nearby truck traffic, can add sudden upward loads. This is especially true on large flat loads and may result in damage to the cargo or your vehicle.

**WARNING!**

Cargo must be securely tied before driving your vehicle. Improperly secured loads can fly off the vehicle, particularly at high speeds, resulting in personal injury or property damage. Follow the roof rack “Cautions” when carrying cargo on your roof rack.



# UNDERSTANDING YOUR INSTRUMENT PANEL

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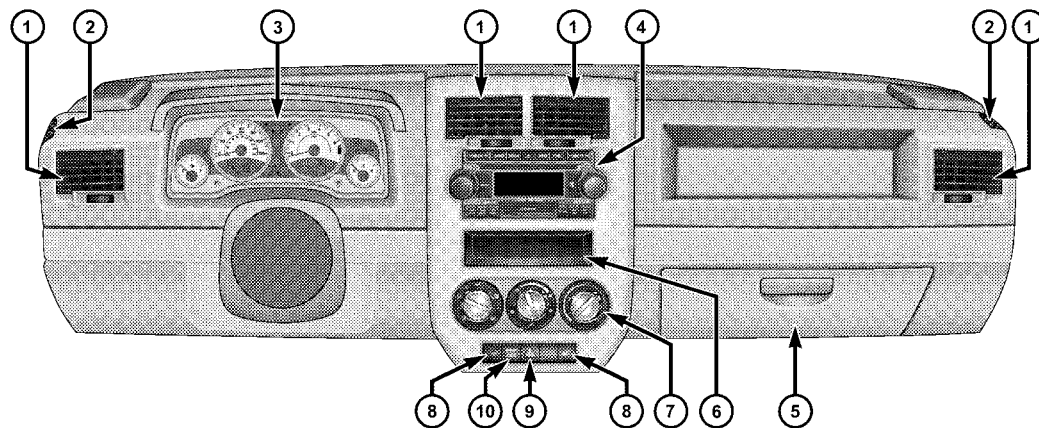
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## INSTRUMENT PANEL FEATURES



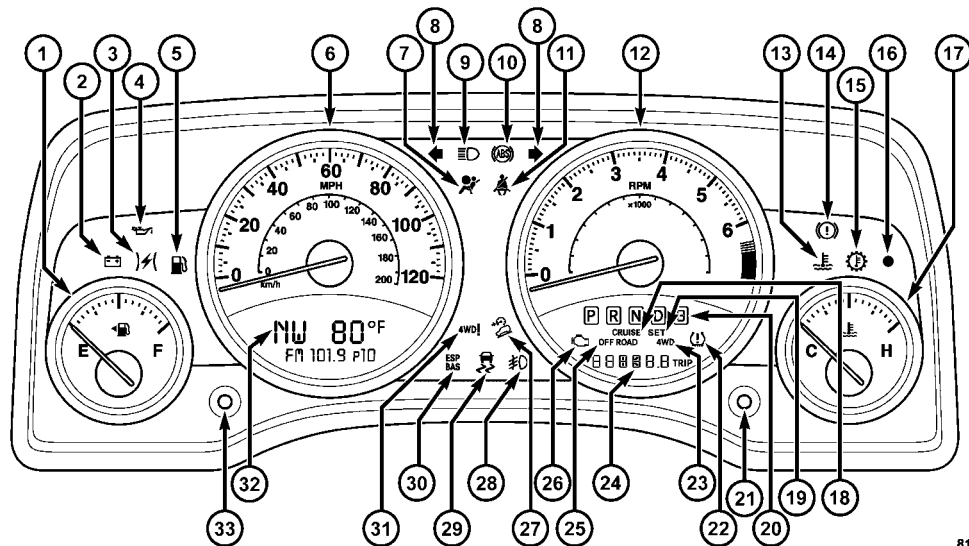
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- 1 — Air Outlet
- 2 — Demisters
- 3 — Instrument Cluster
- 4 — Radio

- 5 — Glove Box
- 6 — Storage Bin
- 7 — Climate Controls
- 8 — Heated Seat Switches — If Equipped

- 9 — Hazard Warning Flasher
- 10 — ESP OFF Switch — If Equipped

# INSTRUMENT CLUSTER—PREMIUM



818da26c

## INSTRUMENT CLUSTER DESCRIPTIONS

### 1. Fuel Gauge/Fuel Door Location



When the ignition switch is in the ON position, the pointer will show the level of fuel remaining in the fuel tank. The fuel pump symbol points to the side of the vehicle where the fuel door is located

### 2. Voltage Warning Light



This light shows the status of the electrical charging system. The light should come on when the ignition switch is first turned ON and remain on briefly as a bulb check. If the Charging System light remains on, or comes on while driving, it means that the vehicle is experiencing a problem with the charging system. Obtain SERVICE IMMEDIATELY. See your authorized dealer.

### 3. Electronic Throttle Control (ETC) Warning Light




This light informs you of a problem with the Electronic Throttle Control system. If a problem is detected, the light will come on while the engine is running. If the light remains lit with the engine running your vehicle will usually be drivable and not need towing, however see your dealer for service as soon as possible.

If the light is flashing when the engine is running you may experience power loss, an elevated/rough idle, and increased brake pedal effort, and your vehicle may require towing. Immediate service is required.

The light will come on when the ignition switch is first turned on and remain on briefly as a bulb check. This is normal. If the light does not come on during starting, have the system checked by an authorized dealer.


#### 4. Oil Pressure Warning Light

 Shows low engine oil pressure. The light will come on and remain on when the ignition switch is turned from the OFF to the ON position, and the light will turn off after the engine is started. If the bulb does not come on during starting, have the system checked by an authorized dealer.

If the light comes on and remains on while driving, stop the vehicle and shut off the engine. **DO NOT OPERATE THE VEHICLE UNTIL THE CAUSE IS CORRECTED.**

The light does not show the quantity of oil in the engine. This can be determined using the procedure shown in Section 7.

#### 5. Low Fuel Warning Light

 When the fuel level drops to 2 gallons, the fuel symbol will light and a single chime will sound.

#### 6. Speedometer

Indicates vehicle speed.

#### 7. Airbag Warning Light



The light comes on and remains on for 6 to 8 seconds as a bulb check when the ignition switch is first turned ON. If the light does not come on during starting, stays on, or comes on while driving, have the system checked by an authorized dealer.

#### 8. Turn Signal Indicator Light



The arrows will flash in unison with the exterior turn signal, when using the turn signal lever.

#### 9. High Beam Indicator Light



This light shows that the headlights are on high beam. Push the turn signal lever away from the steering wheel to switch the headlights from high or low beam.

**10. Anti-Lock Brake Warning Light — If Equipped**

This light monitors the Anti-Lock Brake System (ABS) described elsewhere in this manual. This light will come on when the ignition key is turned to the ON position and may stay on for as long as four seconds.

If the ABS light remains on or comes on during driving, it indicates that the Anti-Lock portion of the brake system is not functioning and that service is required, however, the conventional brake system will continue to operate normally provided that the BRAKE warning light is not on.

If the ABS light is on, the brake system should be serviced as soon as possible to restore the benefit of Anti-Lock Brakes.

The warning light should be checked frequently to assure that it is operating properly. Turn the ignition key to the

on position, but do not start the vehicle. The light should come on. If the light does not come on, have the system checked by an authorized dealer.

**11. Seat Belt Reminder Light**

When the ignition switch is first turned ON, this light will come on for about six seconds. A chime will sound if you have not pulled the shoulder belt out of the retractor. This is a reminder to “buckle up”. If you do not buckle up, the light will remain on.

**12. Tachometer**

The white area of the scale shows the permissible engine revolutions-per-minute (rpm x 1000) for each gear range. Before reaching the red area, ease up on the accelerator to prevent engine damage.


**13. Engine Coolant Temperature Warning Light**

This light warns of an overheated engine condition. If the engine is critically hot, a warning chime



will sound 10 times. After the chime turns off, the engine will still be critically hot until the light goes out.

#### **14. Brake System Warning Light**

 This light monitors various brake functions, including brake fluid level and parking brake application. If the brake light turns on, it may indicate that the parking brake is applied, there is a low brake fluid level or there is a problem with the anti-lock brake system.

The dual brake system provides a reserve braking capacity in the event of a failure to a portion of the hydraulic system. Failure of either half of the dual brake system is indicated by the Brake Warning Light which will turn on when the brake fluid level in the master cylinder has dropped below a specified level.

The light will remain on until the cause is corrected.

**NOTE:** The light may flash momentarily during sharp cornering maneuvers which change fluid level conditions. The vehicle should have service performed, and the brake fluid level checked.

If brake failure is indicated, immediate repair is necessary.

#### **WARNING!**

**Driving a vehicle with the brake light on is dangerous. Part of the brake system may have failed. It will take longer to stop the vehicle. You could have an accident. Have the vehicle checked immediately.**

Vehicles equipped with Anti-Lock brakes (ABS), are also equipped with Electronic Brake Force Distribution (EBD). In the event of an EBD failure, the Brake Warning Light will turn on along with the ABS Light. Immediate repair to the ABS system is required.

The operation of the Brake Warning Light can be checked by turning the ignition switch from the OFF position to the ON position. The light should illuminate for approximately two seconds. The light should then turn off unless the parking brake is applied or a brake fault is detected. If the light does not illuminate, have the light inspected by an authorized dealer.

The light also will turn on when the parking brake is applied with the ignition switch in the ON position.

**NOTE:** This light shows only that the parking brake is applied. It does not show the degree of brake application.

### ***15. Transmission Temperature Warning Light***



During sustained high speed driving on hot days, the automatic transaxle oil may become too hot. If this happens, the transmission over-heat indicator light will come on and the vehicle will slow slightly until the automatic transaxle cools down enough to allow a return to the requested speed. If the high speed is maintained, the overheating will reoccur as before in a cyclic fashion.

### ***16. Security Alarm System Indicator Light — If Equipped***

This light will flash rapidly for several seconds when the alarm system is arming. The light will begin to flash slowly indicating that the system is armed.

### ***17. Temperature Gauge***

If the pointer rises to the **H** (red) mark, the instrument cluster will sound a chime. Pull over and stop the vehicle. Idle the vehicle with the air conditioner turned off until

the pointer drops back into the normal range. If the pointer remains on the **H** (red) mark, turn the engine off immediately and call for service.

There are steps that you can take to slow down an impending overheat condition. If your air conditioning is on, turn it off. The air conditioning system adds heat to the engine cooling system and turning off the A/C removes this heat. You can also turn the Temperature control to maximum heat, the Mode control to Floor and the Fan control to High. This allows the heater core to act as a supplement to the radiator and aids in removing heat from the engine cooling system.

#### **18. Cruise Indicator Light — If Equipped**

**CRUISE** This indicator shows that the Speed Control System is ON.

#### **19. Cruise SET Indicator Light — If Equipped**

This indicator shows that the Speed Control System is SET.

#### **20. Transmission Range Indicator**

This display indicator shows the automatic transmission gear selection.

#### **21. Odometer/Trip Odometer Reset Button**

Press this button to change the display from odometer to either of the two trip odometer settings. Trip A or Trip B will appear when in the trip odometer mode. Push in and hold the button for two seconds to reset the trip odometer to 0 miles or kilometers. The odometer must be in trip mode to reset.

#### **22. Tire Pressure Monitoring Telltale Light**



Each tire, including the spare (if provided), should be checked monthly when cold and inflated to the inflation pressure recommended by the vehicle manufacturer on the vehicle placard or tire inflation pressure label. (If your vehicle has tires of a different size than the size indicated on the

vehicle placard or tire inflation pressure label, you should determine the proper tire inflation pressure for those tires.)

As an added safety feature, your vehicle has been equipped with a tire pressure monitoring system (TPMS) that illuminates a low tire pressure telltale when one or more of your tires is significantly under-inflated. Accordingly, when the low tire pressure telltale illuminates, you should stop and check your tires as soon as possible, and inflate them to the proper pressure. Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also reduces fuel efficiency and tire tread life, and may affect the vehicle's handling and stopping ability.

Please note that the TPMS is not a substitute for proper tire maintenance, and it is the driver's responsibility to maintain correct tire pressure, even if under-inflation has not reached the level to trigger illumination of the TPMS low tire pressure telltale.

Your vehicle has also been equipped with a TPMS malfunction indicator to indicate when the system is not operating properly. The TPMS malfunction indicator is combined with the low tire pressure telltale. When the system detects a malfunction, the telltale will flash for approximately one minute and then remain continuously illuminated. This sequence will continue upon subsequent vehicle start-ups as long as the malfunction exists. When the malfunction indicator is illuminated, the system may not be able to detect or signal low tire pressure as intended. TPMS malfunctions may occur for a variety of reasons, including the installation of replacement or alternate tires or wheels on the vehicle that prevent the TPMS from functioning properly. Always check the TPMS malfunction telltale after replacing one or more tires or wheels on your vehicle to ensure that the replacement or alternate tires and wheels allow the TPMS to continue to function properly.

**CAUTION!**

The TPMS has been optimized for the original equipment tires and wheels. TPMS pressures and warning have been established for the tire size equipped on your vehicle. Undesirable system operation or sensor damage may result when using replacement equipment that is not of the same size, type, and/or style. After-market wheels can cause sensor damage. Do not use aftermarket tire sealants or balance beads if your vehicle is equipped with a TPMS, as damage to the sensors may result.

**23. 4WD Indicator Light**

This light indicates the vehicle is in 4WD locked mode.

**24. Odometer/Trip Odometer**

A vacuum fluorescent display indicates the total distance the vehicle has been driven. Also, the cluster will display,

replacing the odometer/trip odometer, vehicle warning messages such as: door/gate ajar and loose gas cap. Loose gas cap will be displayed from the Odometer/Trip Odometer on all models.

**NOTE:** If vehicle is equipped with the optional Electronic Vehicle Information Center (EVIC) in the instrument cluster, all warnings including “door”, and “gATE” will only be displayed in the EVIC display. For additional information, refer to “Electronic Vehicle Information Center — If Equipped” in Section 3.

U.S. federal regulations require that upon transfer of vehicle ownership, the seller certify to the purchaser the correct mileage that the vehicle has been driven. Therefore, if the odometer reading is changed during repair or replacement, be sure to keep a record of the reading before and after the service so that the correct mileage can be determined.

### ***Change Oil Message***

Your vehicle is equipped with an engine oil change indicator system. The “Change Oil” message will flash in the instrument cluster odometer for approximately 12 seconds after a single chime has sounded to indicate the next scheduled oil change interval. The engine oil change indicator system is duty cycle based, which means the engine oil change interval may fluctuate dependent upon your personal driving style. Unless reset, this message will continue to display each time you turn the ignition switch to the ON/RUN position. To turn off the message temporarily, press and release the Trip Odometer button on the instrument cluster. To reset the oil change indicator system (after performing the scheduled maintenance) refer to the following procedure.

1. Turn the ignition switch to the ON position (Do not start the engine).

2. Fully depress the accelerator pedal slowly three times within 10 seconds.

3. Turn the ignition switch to the OFF/LOCK position.

**NOTE:** If the indicator message illuminates when you start the vehicle, the oil change indicator system did not reset. If necessary repeat this procedure.

### ***25. OFF ROAD Indicator Light — If Equipped***

The symbol illuminates (is armed) when the 4WD lock switch is activated and the transmission range indicator is in Low or Reverse position.

### ***26. Malfunction Indicator Light***



This light is part of an onboard diagnostic system called OBD that monitors emissions, engine, and automatic transmission control systems. The light will illuminate when the key is in the ON/RUN position

before engine start. If the bulb does not come on when turning the key from OFF to ON/RUN, have the condition checked promptly.

Certain conditions such as a loose or missing gas cap, poor fuel quality, etc. may illuminate the light after engine start. The vehicle should be serviced if the light stays on through several of your typical driving cycles. In most situations the vehicle will drive normally and will not require towing.

If the Malfunction Indicator Light flashes when the engine is running, serious conditions may exist that could lead to immediate loss of power or severe catalytic converter damage. The vehicle should be serviced as soon as possible if this occurs.

### **27. Hill Descent Indicator Light — If Equipped**



The symbol illuminates (is armed) when the 4WD lock switch is activated and the transmission range indicator is in Low or Reverse position (Off Road Mode).

### **28. Front Fog Light Indicator Light — If Equipped**



This light shows when the front fog lights are ON.

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### **29. Electronic Stability Program (ESP) Indicator Light/Traction Control System (TCS) Indicator Light — If Equipped**



If this indicator light flashes during acceleration, apply as little throttle as possible. While driving, ease up on the accelerator. Adapt your speed and driving to the prevailing road conditions, and do not switch off the ESP, or TCS — if equipped.

### **30. Electronic Stability Program (ESP) Indicator Light**

#### **ESP BAS**

The malfunction lamp for the ESP is combined with BAS. The yellow “ESP/BAS Warning Lamp” comes on when the ignition switch is turned to the “ON” position. They should go out with the engine running. If the “ESP/BAS Warning Lamp” comes on continuously with the engine running, a malfunction has been detected in either the ESP or the BAS system. If this light remains on after several ignition cycles, and the vehicle has been driven several miles at speeds greater than 30 mph (48 km/h), see your authorized dealer as soon as possible.

### **31. 4WD! Warning Light**

#### **4WD!**

This light monitors the Four -Wheel-Drive (4WD) system. The light will come on, for a bulb check, when the ignition key is turned to the ON position and may stay on for as long as 3 seconds.

**When lit solid:** There is an 4WD system fault. 4WD performance will be at a reduced level. Service the 4WD system soon.

**When blinking:** The 4WD system is temporarily disabled due to overload condition.

### **32. Electronic Vehicle Information Center Display—If Equipped**

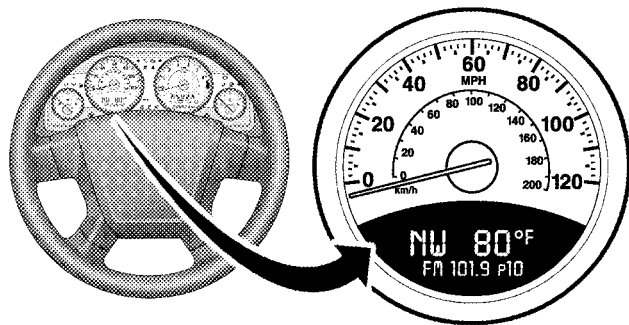
When the appropriate conditions exist, this display shows the Electronic Vehicle Information Center (EVIC) messages.

### **33. Electronic Vehicle Information Center (EVIC) Button—If Equipped**

Pushing this button, will change the display to the choices available for EVIC.



## ELECTRONIC VEHICLE INFORMATION CENTER (EVIC) – IF EQUIPPED



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### EVIC Location

The Electronic Vehicle Information Center (EVIC) features a driver-interactive display. It is located in the lower left part of the cluster below the fuel and engine temperature gauge. The EVIC consists of the following:

- System Status
- Vehicle information warning message displays
- Personal Settings (customer programmable features)
- Compass heading
- Outside temperature display
- Trip computer functions
- UConnect™ hands-free communication system displays — If Equipped
- Audio mode display
- Tire Pressure Monitor (TPM)

When the appropriate conditions exist, the Electronic Vehicle Information Center (EVIC) displays the following messages.

- Turn Signal On (with a continuous warning chime)

- Left Front Turn Signal Lamp Out (with a single chime)
- Left Rear Turn Signal Lamp Out (with a single chime)
- Right Front Turn Signal Lamp Out (with a single chime)
- Right Rear Turn Signal Lamp Out (with a single chime)
- RKE Battery Low (with a single chime)
- Personal Settings Not Available – Vehicle Not in Park (automatic transmissions) or vehicle is in motion (manual transmissions).
- Left/Right Front Door Ajar (one or more, with a single chime if speed is above 1 mph)
- Left/Right Rear Door Ajar (one or more, with a single chime if speed is above 1 mph)
- Door (S) Ajar (with a single chime if vehicle is in motion)
- Gate Ajar (with a single chime)
- Headlamps On
- Key In Ignition
- Check TPM System

### **Engine Oil Change Indicator System**

#### **Oil Change Required**

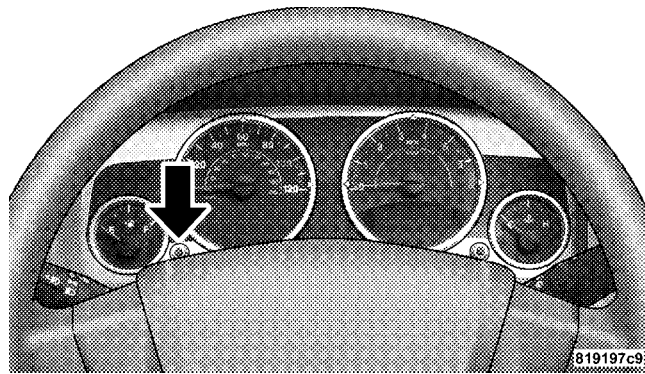
Your vehicle is equipped with an engine oil change indicator system. The “Oil Change Required” message will flash in the EVIC display for approximately 10 seconds after a single chime has sounded to indicate the next scheduled oil change interval. The engine oil change indicator system is duty cycle based, which means the engine oil change interval may fluctuate dependent upon your personal driving style.

Unless reset, this message will continue to display each time you turn the ignition switch to the ON/RUN position. To turn off the message temporarily, press and release the Trip Odometer button on the instrument cluster. To reset the oil change indicator system (after performing the scheduled maintenance) refer to the following procedure.

1. Turn the ignition switch to the ON position (Do not start the engine).
2. Fully depress the accelerator pedal slowly three times within 10 seconds.
3. Turn the ignition switch to the OFF/LOCK position.

**NOTE:** If the indicator message illuminates when you start the vehicle, the oil change indicator system did not reset. If necessary repeat this procedure.

## EVIC Functions



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### EVIC Button

Press the EVIC button until one of the following functions are displayed on the EVIC:

- Compass/Temperature/Audio
- Average Fuel Economy

- Distance To Empty (DTE)
- Elapsed Time
- Tire Pressure Monitor (TPM)
- Personal Settings

**To Reset The Display**

Pressing and holding the EVIC button once will clear the function currently being displayed. Reset will only occur if a resettable function is currently being displayed. To reset all resettable functions, press and release the EVIC button a second time within 3 seconds of resetting the currently displayed function (Reset ALL will be displayed during this 3 second window).

**Compass/Temperature/Audio**

Press and release the EVIC button to display one of eight compass headings to indicate the direction the vehicle is facing, the outside temperature and the current radio station.

For additional information regarding the compass, refer to Personal Settings (Customer Programmable Features) in this section.

**Average Fuel Economy**

Shows the average fuel economy since the last reset. When the fuel economy is reset, the display will read “RESET” or show dashes for two seconds. Then, the history information will be erased, and the averaging will continue from the last fuel reading before the reset.

**Distance To Empty (DTE)**

Shows the estimated distance that can be travelled with the fuel remaining in the tank. This estimated distance is determined by a weighted average of the instantaneous and average fuel economy, according to the current fuel tank level. This is not resettable.

**NOTE:** Significant changes in driving style or vehicle loading will greatly affect the actual drivable distance of the vehicle, regardless of the DTE displayed value.

When the DTE value is less than 30 miles estimated driving distance, the DTE display will change to a text display of "LOW FUEL". This display will continue until the vehicle runs out of fuel. Adding a significant amount of fuel to the vehicle will turn off the "LOW FUEL" text and a new DTE value will be displayed, based on the current values in the DTE calculation and the current fuel tank level.

**Elapsed Time**

Shows the total elapsed time of travel since the last reset when the ignition switch is in the ACC position. Elapsed time will increment when the ignition switch is in the ON or START position.

**Tire Pressure Monitor (TPM)**

Refer to Section 5, "Tire Pressure Monitoring System (TPMS) for system operation.

**Personal Settings (Customer Programmable Features)**

This allows the driver to set and recall features when the transmission is in PARK (automatic transmission) or the vehicle is stopped (manual transmissions).

Press and release the EVIC button until Personal Settings is displayed in the EVIC.

Use the EVIC button to display one of the following choices:

### Language

When in this display you may select different languages for all display nomenclature, including the trip functions. Pressing the EVIC button while in this display selects English, Espanol, Deutsch, Italiano, or Francais depending on availability. As you continue the displayed information will be shown in the selected language.

**NOTE:** UConnect™ language will not change using the EVIC. Please refer to “Language Selection” in the HANDS-FREE COMMUNICATION (UConnect™) — IF EQUIPPED section of this manual for details.

### Lock Doors Automatically at 15 mph (24 km/h)

When ON is selected all doors lock automatically when the speed of the vehicle reaches 15 mph (24 km/h). Press and hold the EVIC button when in this display until “ON” or “OFF” appears to make your selection.

### Auto Unlock On Exit

When ON is selected all the vehicle’s doors will unlock when the driver’s door is opened if the vehicle is stopped (manual transmissions) or the vehicle is stopped and the transmission is in P (Park) or N (Neutral) position (automatic transmissions). Press and hold the EVIC button when in this display until “ON” or “OFF” appears to make your selection.

### Remote Unlock Driver’s Door 1st

When **DRIVER’S DOOR 1ST** is selected only the driver’s door will unlock on the first press of the remote keyless entry unlock button and require a second press to unlock the remaining locked doors. When **REMOTE UNLOCK ALL DOORS** is selected all of the doors will unlock at the first press of the remote keyless entry unlock button. Press and hold the EVIC button when in this display until “DRIVER’S DOOR 1ST” or “ALL DOORS” appears to make your selection.

**Sound Horn with Remote Key Lock**

When ON is selected a short horn sound will occur when the remote keyless entry “Lock” button is pressed. This feature may be selected with or without the flash lights on lock/unlock feature. Press and hold the EVIC button when in this display until “ON” or “OFF” appears to make your selection.

**Flash Lights with Remote Key Lock**

When ON is selected, the front and rear turn signals will flash when the doors are locked or unlocked using the remote keyless entry transmitter. This feature may be selected with or without the sound horn on lock feature selected. Press and hold the EVIC button when in this display until “ON” or “OFF” appears to make your selection.

**Delay Turning Headlamps Off**

When this feature is selected the driver can choose to have the headlamps remain on for 0, 30, 60, or 90 seconds

when exiting the vehicle. Press and hold the EVIC button when in this display until 0, 30, 60, or 90 appears to make your selection.

**Headlamps On With Wipers (Available with Auto Headlights Only)**

When ON is selected and the headlight switch is in the AUTO position, the headlights will turn on approximately 10 seconds after the wipers are turned on. The headlights will also turn off when the wipers are turned off if they were turned on by this feature. Press and hold the EVIC button when in this display until “ON” or “OFF” appears to make your selection.

**NOTE:** Turning the headlights on during the daytime causes the instrument panel lights to dim. To increase the brightness, refer to “Lights” in this section.

**Delay Power Off to Accessories Until Exit**

When this feature is selected, the power window switches, radio, hands-free system, power sunroof, and

power outlets will remain active for up to 60 minutes after the ignition switch has been turned off. Opening a vehicle door will cancel this feature. Press and hold the EVIC button when in this display until “Off”, “45 sec.”, “5 min.”, or “10 min.” appears to make your selection.

### **Turn Headlamps on with Remote Key Unlock**

When this feature is selected the headlamps will activate and remain on for up to 90 seconds when the doors are unlocked using the remote keyless entry transmitter. Press and hold the EVIC button when in this display until “OFF”, “30 sec.”, “60 sec.”, or “90 sec.” appears to make your selection.

### **Confirmation of Voice Commands — If Equipped**

When ON is selected all voice commands from the U-Connect system are confirmed. Press and hold the EVIC button when in this display until “ON” or “OFF” appears to make your selection.

### **Display English or Metric**

The EVIC, odometer, and navigation system units can be changed between English and Metric.

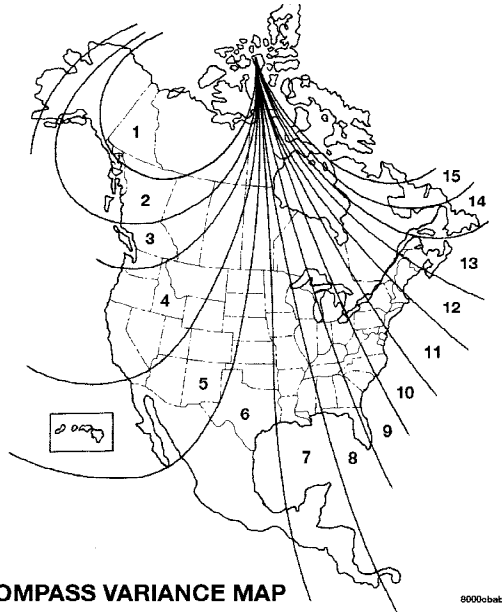
Press and hold the EVIC button when in this display until “US” or “METRIC” appears to make your selection.

### **Compass Variance**

Compass Variance is the difference between magnetic North and Geographic North. In some areas of the country, the difference between magnetic and geographic North is great enough to cause the compass to give false readings. In order to ensure compass accuracy, the compass variance should be set to the zone number on the compass variance map that corresponds to the current location of the vehicle.

**NOTE:** Magnetic materials should be kept away from the Instrument Panel. This is where the compass sensor is located.





COMPASS VARIANCE MAP

0000cbbab

**To Set the Variance:** with the ignition in the ON position, with a short button press (less than one second) press and release the EVIC button several times until you have displayed the Personal Settings (Customer Programmable Features) menu. Once in the Personal Settings (Customer Programmable Features) menu, press and release (less than one second) the EVIC button several times until “Compass Variance” is highlighted. The “Compass Variance” message and the current variance zone number will be displayed. To change the zone, press and hold (longer than two seconds) the EVIC button to increment the variance one step. Repeat as necessary, with individual long (for at least 1 second) EVIC button presses for each increment, until the desired variance is achieved. To exit the Variance Programming, press the EVIC button with a short (less than one second) button press.

**NOTE:** The factory default Zone is 8. During programming, the Zone value will wrap around from Zone 15 to Zone 1.

### Compass Calibration

The Compass will automatically calibrate if the Cal indicator is flashing, by driving around slowly (under 5 mph / 8 km/h) in one or more complete circles in an area free from large metallic objects or power lines, until the Cal indicator turns off. If during normal use the compass appears erratic, inaccurate or abnormal, you may wish to manually calibrate the compass. Prior to calibrating the compass make sure the proper zone is selected.

**To Manually Calibrate the Compass:** start the engine and leave the transmission in the PARK position. Using a short button press (less than one second), press and release the EVIC button several times until the EVIC displays the Personal Settings (Customer Programmable

Features) menu. Once in the Personal Settings (Customer Programmable Features) menu, press and release (less than one second) the EVIC button several times until "Calibrate Compass (Yes)" is displayed. Using a long button press (more than one second), pressing the EVIC button will place the Compass in calibration mode. The Cal indicator will come on continuously in the EVIC display to indicate that the compass is now in the calibration mode and that the vehicle can now be driven to calibrate. (A short EVIC button press from the "Calibrate Compass (Yes)" screen will exit the EVIC Customer Programmable features, and return it to its normal operating mode). To complete the compass calibration, drive the vehicle in one or more complete 360 degree circles under 5 mph (8 km/h) in an area free from power lines, large metallic objects, until the CAL indicator turns off. The compass will now function normally.

## RADIO GENERAL INFORMATION

### Radio Broadcast Signals

Your new radio will provide excellent reception under most operating conditions. Like any system, however, car radios have performance limitations, due to mobile operation and natural phenomena, which might lead you to believe your sound system is malfunctioning. To help you understand and save you concern about these “apparent” malfunctions, you must understand a point or two about the transmission and reception of radio signals.

### Two Types of Signals

There are two basic types of radio signals... AM or Amplitude Modulation, in which the transmitted sound causes the amplitude, or height, of the radio waves to vary... and FM or Frequency Modulation, in which the frequency of the wave is varied to carry the sound.

### Electrical Disturbances

Radio waves may pick up electrical disturbances during transmission. They mainly affect the wave amplitude, and thus remain a part of the AM reception. They interfere very little with the frequency variations that carry the FM signal.

### AM Reception

AM sound is based on wave amplitude, so AM reception can be disrupted by such things as lightning, power lines and neon signs.

### FM Reception

Because FM transmission is based on frequency variations, interference that consists of amplitude variations can be filtered out, leaving the reception relatively clear, which is the major feature of FM radio.

**NOTE:** The radio, steering wheel radio controls (if equipped), and 6 disc CD/DVD changer (if equipped)

will remain active for up to 10 minutes after the ignition switch has been turned off. Opening a vehicle front door will cancel this feature.

### **ELECTRONIC DIGITAL CLOCK**

The clock and radio each use the display panel built into the radio. A digital readout shows the frequency and/or time in hours and minutes (depending on your radio model) whenever the ignition switch is in the “ON” or “ACC” position.

When the ignition switch is in the “OFF” position, or when the radio frequency is being displayed, time keeping is accurately maintained.

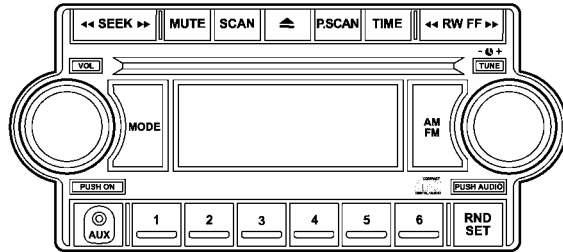
On the AM/FM/CD (6-disc) radio the time button alternates the location of the time and frequency on the display. On the AM/FM/CD (single-disc) radio only one of the two, time or frequency is displayed.

### **Clock Setting Procedure**

1. Press and hold the time button until the hours blink.
2. Adjust the hours by turning the right side Tune / Audio control.
3. After the hours are adjusted, press the right side Tune / Audio control to set the minutes.
4. Adjust the minutes using the right side Tune / Audio control.
5. To exit, press any button/knob or wait approximately 5 seconds.

## SALES CODE REF — AM/FM/CD (SINGLE DISC) RADIO WITH OPTIONAL SATELLITE RADIO AND HANDS FREE PHONE CAPABILITY

**NOTE:** The radio sales code is located on the lower right side of your radio faceplate.



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REF Radio

## Operating Instructions - Radio Mode

**NOTE:** The ignition switch must be in the ON or ACC position to operate the radio.

### Power Switch/Volume Control (Rotary)

Press the ON/VOL control to turn the radio ON. Press the ON/VOL a second time to turn OFF the radio.

### Electronic Volume Control

The electronic volume control turns continuously (360 degrees) in either direction without stopping. Turning the volume control to the right increases the volume and to the left decreases it.

When the audio system is turned on, the sound will be set at the same volume level as last played.

For your convenience, the volume can be turned down, but not up, when the audio system is off and the ignition is ON.

**Mode Button (Radio Mode)**

Press the mode button repeatedly to select between the CD player and Satellite Radio (if equipped).

**SEEK Button (Radio Mode)**

Press and release the SEEK button to search for the next listenable station in either AM/FM or Satellite (if equipped) mode. Press the right side of the button to seek up and the left side to seek down. The radio will remain tuned to the new station until you make another selection. Holding the button will bypass stations without stopping until you release it.

**MUTE Button (Radio Mode)**

Press the MUTE button to cancel the sound from the speakers. "MUTE" will display. Press the MUTE button a second time and the sound from the speakers will return. Rotating the volume control, turning the radio ON/OFF, or turning ON/OFF the ignition, will cancel the MUTE feature.

**NOTE:** In Hands Free Phone (if equipped) mode, the MUTE button mutes the microphone.

**SCAN Button (Radio Mode)**

Pressing the SCAN button causes the tuner to search for the next listenable station in either, AM, FM, or Satellite (if equipped) frequencies, pausing for 5 seconds at each listenable station before continuing to the next. To stop the search, press SCAN a second time.

**PSCAN Button (Radio Mode)**

Pressing the PSCAN button causes the tuner to scan through preset stations in either, AM, FM, or Satellite (if equipped) frequencies, pausing for 5 seconds at each preset station before continuing to the next. To stop the search, press PSCAN a second time.

**Time Button**

Press the time button and the time of day will display for 5 seconds.

### **Clock Setting Procedure**

1. Press and hold the time button until the hours blink.
2. Adjust the hours by turning the right side Tune/Audio control.
3. After the hours are adjusted, press the right side Tune/Audio control to set the minutes. The minutes will begin to blink.
4. Adjust the minutes using the right side Tune/Audio control.
5. To exit, press any button/knob or wait 5 seconds.

### **RW/FF (Radio Mode)**

Pressing the rewind/fast forward button causes the tuner to search for the next frequency in the direction of the arrows. This feature operates in either AM, FM or Satellite (if equipped) frequencies.

### **TUNE Control (Radio Mode)**

Turn the right side rotary control clockwise to increase or counter-clockwise to decrease the frequency.

### **AM/FM Button (Radio Mode)**

Press the button to select AM or FM Modes.

### **Setting the Tone, Balance, and Fade**

Press the rotary TUNE control and BASS will display. Turn the TUNE control to the right or left to increase or decrease the Bass tones.

Press the rotary TUNE control a second time and MID will display. Turn the TUNE control to the right or left to increase or decrease the Mid Range tones.

Press the rotary TUNE control a third time and TREB will display. Turn the TUNE control to the right or left to increase or decrease the Treble tones.

Press the rotary TUNE control a fourth time and BAL will display. Turn the TUNE control to the right or left to adjust the sound level from the right or left side speakers.

Press the rotary TUNE control a fifth time and FADE will display. Turn the TUNE control to the left or right to adjust the sound level between the front and rear speakers.

Press the tune control again or wait 5 seconds to exit setting tone, balance, and fade.

### **RND/SET Button (Radio Mode) To SET The Push-Button Memory**

When you are receiving a station that you wish to commit to push-button memory, press the SET button. The symbol SET 1 will now show in the display window. Select the button (1-6) you wish to lock onto this station and press and release that button. If a button is not

selected within 5 seconds after pressing the SET button, the station will continue to play but will not be stored into push-button memory.

You may add a second station to each push-button by repeating the above procedure with this exception: Press the SET button twice and SET 2 will show in the display window. Each button can be set for SET 1 and SET 2 in both AM and FM. This allows a total of 12 AM, 12 FM, and 12 Satellite (if equipped) stations to be stored into push-button memory. The stations stored in SET 2 memory can be selected by pressing the push-button twice.

Every time a preset button is used, a corresponding button number will display.

### **Preset Buttons 1 - 6 (Radio Mode)**

These buttons tune the Radio to the stations that you commit to push-button memory {12 AM, 12 FM, and 12 Satellite (if equipped) stations}.



## Operation Instructions - CD Mode

**NOTE:** The ignition switch must be in the ON or ACC position to operate the radio.

### Inserting The Compact Disc (Single CD Player)

Gently insert one CD into the CD player with the CD label facing up. The CD will automatically be pulled into the CD Player and the CD icon will illuminate on the radio display.

If the volume control is ON, the unit will switch to CD mode and begin to play. The display will show the track number and play time in minutes and seconds. Play will begin at the start of track one.

**NOTE:**

- On some vehicles, you may insert or eject a disc with the radio or ignition switch OFF.

- If you insert a disc with the ignition ON and the radio OFF, the CD will automatically be pulled into the CD Player.
- This radio does not play discs with MP3 tracks.

### SEEK Button (CD Mode)

Press the right side of the SEEK button for the next track on the CD. Press the left side of the button to return to the beginning of the current track, or return to the beginning of the previous track if the CD is within the first 10 seconds of the current selection.

### MUTE Button (CD Mode)

Press the MUTE button to cancel the sound from the speakers. "MUTE" will display. Press the MUTE button a second time and the sound from the speakers will return. Rotating the volume control or turning OFF the ignition will also return the sound from the speakers.

**SCAN Button (CD Mode)**

Press this button to play the first 10 seconds of each track. To stop the scan function, press the button a second time.

**EJECT Button (CD Mode)**

Press this button and the disc will unload and move to the entrance for easy removal. The unit will switch to the last selected mode.

If you do not remove the disc within 15 seconds, it will be reloaded. The radio mode will continue to appear.

**TIME Button (CD Mode)**

Press this button to change the display from elapsed CD playing time to time of day. The time of day will display for 5 seconds.

**RW/FF (CD Mode)**

Press and hold the FF (Fast Forward) and the CD player will begin to fast forward until FF is released. The RW (Reverse) button works in a similar manner.

**RND/SET Button (Random Play Button) (CD Mode)**

Press this button while the CD is playing to activate Random Play. This feature plays the selections on the compact disc in random order to provide an interesting change of pace.

Press the SEEK button to move to the next randomly selected track.

Press and hold the FF button to fast forward through the tracks. Release the FF button to stop the fast forward feature. If the RW button is pressed, the current track will reverse to the beginning of the track and begin playing.

Press the RND button a second time to stop Random Play.

**Operation Instructions - Auxiliary Mode**

The auxiliary (AUX) jack is an audio input jack, which allows the user to plug in a portable device such as an MP3 player, cassette player, or microphone and utilize the vehicle's audio system to amplify the source and play through the vehicle speakers.

The auxiliary mode becomes active when an electrical device is plugged into the AUX jack using a standard 3.5 mm stereo audio cable and the user presses and releases the MODE button until AUX appears on the display.

**NOTE:** The radio will return to the last stored mode if the ignition switch is turned from the OFF/LOCK position to the ACC position, the radio is turned on, and the radio was previously in the AUX mode.

**SEEK Button (Auxiliary Mode)**

No function.

**MUTE Button (Auxiliary Mode)**

Press the MUTE button to cancel the sound from the speakers. "MUTE" will display. Press the MUTE button a second time and the sound from the speakers will return. Rotating the volume control or turning OFF the ignition will also return the sound from the speakers.

**SCAN Button (Auxiliary Mode)**

No function.

**EJECT Button (Auxiliary Mode)**

No function.

**PSCAN Button (Auxiliary Mode)**

No function.

**TIME Button (Auxiliary Mode)**

Press this button to change the display from elapsed playing time to time of day. The time of day will display for 5 seconds.

**RW/FF (Auxiliary Mode)**

No function.

**RND/SET Button (Auxiliary Mode)**

No function.

**Mode Button (Auxiliary Mode)**

Press the mode button repeatedly to select between the CD player and Satellite Radio (if equipped).

**Operating Instructions - Hands Free Phone — If Equipped**

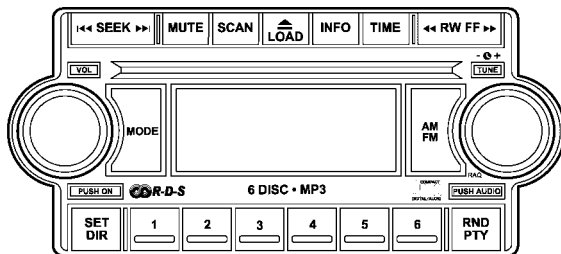
Refer to the “HANDS FREE PHONE (UConnect™)” section of the Owner’s Manual.

**Operating Instructions - Satellite Radio — If Equipped**

Refer to the “Satellite Radio” section of the Owner’s Manual.

## SALES CODE RAQ – AM/FM/CD (6-DISC) RADIO WITH OPTIONAL SATELLITE RADIO, HANDS FREE PHONE, AND VEHICLE ENTERTAINMENT SYSTEMS (VES) CAPABILITIES

**NOTE:** The radio sales code is located on the lower right side of your radio faceplate.



RAQ Radio

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## Operating Instructions - Radio Mode

**NOTE:** The ignition switch must be in the ON or ACC position to operate the radio.

### Power Switch/Volume Control (Rotary)

Press the ON/VOL control to turn the radio ON. Press the ON/VOL a second time to turn OFF the radio.

### Electronic Volume Control

The electronic volume control turns continuously (360 degrees) in either direction without stopping. Turning the volume control to the right increases the volume and to the left decreases it.

When the audio system is turned on, the sound will be set at the same volume level as last played.

For your convenience, the volume can be turned down, but not up, when the audio system is off and the ignition is ON.

**Mode Button (Radio Mode)**

Press the mode button repeatedly to select between the CD player, Satellite Radio, or Vehicle Entertainment System (VES) (if equipped).

**SEEK Button (Radio Mode)**

Press and release the SEEK button to search for the next listenable station in either AM/FM or Satellite (if equipped) mode. Press the right side of the button to seek up and the left side to seek down. The radio will remain tuned to the new station until you make another selection. Holding the button will bypass stations without stopping until you release it.

**MUTE Button (Radio Mode)**

Press the MUTE button to cancel the sound from the speakers. "MUTE" will be displayed. Press the MUTE button a second time and the sound from the speakers will return. Rotating the volume control, turning the radio ON/OFF, or turning OFF the ignition will also return the sound from the speakers

**NOTE:** In Hands Free Phone (if equipped) mode, the MUTE button mutes the microphone.

**SCAN Button (Radio Mode)**

Pressing the SCAN button causes the tuner to search for the next listenable station, in either AM, FM or Satellite (if equipped) frequencies, pausing for 5 seconds at each listenable station before continuing to the next. To stop the search, press SCAN a second time.

**MSG or INFO Button (Radio Mode)**

Press the MSG or INFO button for an RBDS station (one with call letters displayed). The radio will return a Radio Text message broadcast from an FM station (FM mode only).

**Time Button**

Press the time button and the time of day will be displayed for 5 seconds.

### **Clock Setting Procedure**

1. Press and hold the time button until the hours blink.
2. Adjust the hours by turning the right side Tune / Audio control.
3. After the hours are adjusted, press the right side Tune / Audio control to set the minutes. The minutes will begin to blink.
4. Adjust the minutes using the right side Tune / Audio control.
5. To exit, press any button/knob or wait 5 seconds.

### **RW/FF (Radio Mode)**

Pressing the rewind/fast forward button causes the tuner to search for the next frequency in the direction of the arrows. This feature operates in either AM, FM or Satellite (if equipped) frequencies.

### **TUNE Control (Radio Mode)**

Turn the right side rotary control clockwise to increase or counter-clockwise to decrease the frequency.

### **AM/FM Button (Radio Mode)**

Press the button to select AM or FM Modes.

### **Setting the Tone, Balance, and Fade**

Press the rotary TUNE control and BASS will display. Turn the TUNE control to the right or left to increase or decrease the Bass tones.

Press the rotary TUNE control a second time and MID will display. Turn the TUNE control to the right or left to increase or decrease the Mid Range tones.

Press the rotary TUNE control a third time and TREBLE will display. Turn the TUNE control to the right or left to increase or decrease the Treble tones.

Press the rotary TUNE control a fourth time and BALANCE will display. Turn the TUNE control to the right or left to adjust the sound level from the right or left side speakers.

Press the rotary TUNE control a fifth time and FADE will display. Turn the TUNE control to the left or right to adjust the sound level between the front and rear speakers.

Press the rotary TUNE control again to exit setting tone, balance and fade.

### **RND/PTY Button (Radio Mode)**

Pressing this button once will turn on the PTY mode for 5 seconds. If no action is taken during the 5 second time out the PTY icon will turn off. Pressing the PTY button or turning the TUNE rotary knob within 5 seconds will allow the program format type to be selected. Many radio stations do not currently broadcast PTY information.

Toggle the PTY button to select the following format types:

<b>Program Type</b>	<b>16 Digit-Character Display</b>
No program type or undefined	None
Adult Hits	Adult_Hits
Alert Alert	Alert Alert
Classical	Classical
Classic Rock	Classic_Rock
College	College
Country	Country
Emergency Test	Emergency Test
Foreign Language	Foreign_Language
Information	Information
Jazz	Jazz
News	News



Nostalgia	Nostalgia
Oldies	Oldies
Personality	Personality
Public	Public
Rhythm and Blues	Rhythm_and_Blues
Religious Music	Religious_Music
Religious Talk	Religious_Talk
Rock	Rock
Soft	Soft
Soft Rock	Soft_Rock
Soft Rhythm and Blues	Soft_R_&_B
Sports	Sports
Talk	Talk
Top 40	Top_40
Weather	Weather

By pressing the SEEK button when the PTY icon is displayed, the radio will be tuned to the next frequency

station with the same selected PTY name. The PTY function only operates when in the FM mode.

If a preset button is activated while in the PTY (Program Type) mode, the PTY mode will be exited and the radio will tune to the preset station.

### SET/DIR Button (Radio Mode) — To Set the Push-Button Memory

When you are receiving a station that you wish to commit to push-button memory, press the SET/DIR button. The symbol SET 1 will now show in the display window. Select the button (1-6) you wish to lock onto this station and press and release that button. If a button is not selected within 5 seconds after pressing the SET/DIR button, the station will continue to play but will not be stored into push-button memory.

You may add a second station to each push-button by repeating the above procedure with this exception: Press the SET/DIR button twice and SET 2 will show in the

display window. Each button can be set for SET 1 and SET 2 in both AM and FM. This allows a total of 12 AM, 12 FM and 12 Satellite (if equipped) stations to be stored into push-button memory. The stations stored in SET 2 memory can be selected by pressing the push-button twice.

Every time a preset button is used a corresponding button number will be displayed.

### **Buttons 1 - 6 (Radio Mode)**

These buttons tune the Radio to the stations that you commit to push-button memory {12AM, 12 FM, and 12 Satellite (if equipped) stations}.

### **Operation Instructions - (CD MODE for CD Audio Play)**

**NOTE:** The ignition switch must be in the ON or ACC position to operate the radio.

**NOTE:** Note: This Radio is capable of playing compact discs (CD), recordable compact discs (CD-R), rewritable compact discs (CD-RW) compact discs with MP3 tracks and multisession compact discs with CD and MP3 tracks.

### **Inserting Compact Disc(s)**

Gently insert one CD into the CD player with the CD label facing up. The CD will automatically be pulled into the CD Player and the CD icon will illuminate on the radio display.

### **CAUTION!**

**This CD player will accept 4 3/4 inch (12 cm) discs only. The use of other sized discs may damage the CD player mechanism.**

You may eject a disc with the radio OFF.

If you insert a disc with the ignition ON and the radio ON, the unit will switch from radio to CD mode and begin to play when you insert the disc. The display will show the disc number, the track number, and index time in minutes and seconds. Play will begin at the start of track 1.

#### **SEEK Button (CD MODE for CD Audio Play)**

Press the right side of the SEEK button for the next selection on the CD. Press the left side of the button to return to the beginning of the current selection, or return to the beginning of the previous selection if the CD is within the first 10 seconds of the current selection.

#### **MUTE Button (CD MODE for CD Audio Play)**

Press the MUTE button to cancel the sound from the speakers. "MUTE" will be displayed. Press the MUTE button a second time and the sound from the speakers will return. Rotating the volume control, turning the radio ON/OFF, or turning OFF the ignition will also return the sound from the speakers.

#### **SCAN Button (CD MODE for CD Audio Play)**

Press the Scan button to scan through each track on the CD currently playing.

#### **LOAD/EJECT Button (CD Mode for CD Audio Play)**

##### **LOAD/ EJECT - Load**



Press the LOAD/ EJECT button and the push-button with the corresponding number where the CD is being loaded. The radio will display PLEASE WAIT and prompt when to INSERT DISC. After the radio displays "LOAD DISC" insert the CD into the player.

Radio display will show "LOADING DISC" when the disc is loading, and "READING DISC" when the radio is reading the disc.

**LOAD / EJT - Eject**

Press the LOAD/ EJT button and the push-button with the corresponding number where the CD was loaded and the disc will unload and move to the entrance for easy removal. Radio display will show "EJECTING DISC" when the disc is being ejected and prompt the user to remove the disc.

Press and hold the LOAD/ EJT button for 5 seconds and all CDs will be ejected from the radio.

If you have ejected a disc and have not removed it within 15 seconds, it will be reloaded. If the CD is not removed, the radio will continue to play the non-removed CD. If the CD is removed and there are other CD's in the radio, the radio will play the next CD after a 2 minute timeout. If the CD is removed and there are no other CD's in the radio, the radio will remain in CD mode and display "INSERT DISC" for 10 seconds. If no discs are inserted within 10 seconds "NO DISCS LOADED" will be displayed.

On some vehicles a disc can be ejected with the radio and ignition OFF.

**TIME Button (CD MODE for CD Audio Play)**

Press this button to change the display from a large CD playing time display to a small CD playing time display.

**RW/FF (CD MODE for CD Audio Play)**

Press and hold FF (Fast Forward) and the CD player will begin to fast forward until FF is released or RW or another CD button is pressed. The RW (Reverse) button works in a similar manner.

**TUNE Control (CD MODE for CD Audio Play)**

Pressing the TUNE control allows the setting of the Tone, Fade, and Balance. See Radio Mode.

**AM/FM Button (CD MODE for CD Audio Play)**

Switches the Radio to the Radio mode.

**RND/PTY Button (Random Play Button) (CD MODE for CD Audio Play)**

Press this button while the CD is playing to activate Random Play. This feature plays the selections on the compact disc in random order to provide an interesting change of pace.

Press the SEEK button to move to the next randomly selected track.

Press and hold the FF button to fast forward through the tracks. Release the FF button to stop the fast forward feature.

Press the RND button a second time to stop Random Play.

**Buttons 1 - 6 (CD MODE for CD Audio Play)**

Selects disc positions 1 - 6 for Play/Load/Eject.

**Notes On Playing MP3 Files**

The radio can play MP3 files, however, acceptable MP3 file recording media and formats are limited. When writing MP3 files, pay attention to the following restrictions.

**Supported Media (Disc Types)**

The MP3 file recording media supported by the radio are CD-ROM, CD-R and CD-RW.

**Supported Medium Formats (File Systems)**

The medium formats supported by the radio are ISO 9660 Level 1 and Level 2 and includes the Joliet extension. When reading discs recorded using formats other than ISO 9660 Level 1 and Level 2, the radio may fail to read files properly and may be unable to play the file normally. UDF and Apple HFS formats are not supported.

The radio uses the following limits for file systems:

- Maximum number of directory levels: 15
- Maximum number of files: 255
- Maximum number of folders: 100
- Maximum number of characters in file/folder names:
  - Level 1: 12 (including a separator "." and a 3-character extension)
  - Level 2: 31 (including a separator "." and a 3-character extension)

Multisession disc formats are supported by the radio. Multisession discs may contain combinations of normal CD audio tracks and computer files (including MP3 files). Discs created with an option such as "keep disc open after writing" are most likely multisession discs. The use of multisession for CD audio or MP3 playback may result in longer disc loading times.

### **Supported MP3 File Formats**

The radio will recognize only files with the \*.mp3 extension as MP3 files. Non-MP3 files named with the \*.mp3 extension may cause playback problems. The radio is designed to recognize the file as an invalid MP3 and will not play the file.

When using the MP3 encoder to compress audio data to an MP3 file, the bit rate and sampling frequencies in the following table are supported. In addition, variable bit rates (VBR) are also supported. The majority of MP3 files use a 44.1 kHz sampling rate and a 192, 160, 128, 96 or VBR bit rates.

MPEG Specification	Sampling Frequency (kHz)	Bit rate (kbps)
MPEG-1 Audio Layer 3	48, 44.1, 32	320, 256, 224, 192, 160, 128, 112, 96, 80, 64, 56, 48, 40, 32
MPEG-2 Audio Layer 3	24, 22.05, 16	160, 128, 144, 112, 96, 80, 64, 56, 48, 40, 32, 24, 16, 8

ID3 Tag information for artist, song title and album title are supported for version 1 ID3 tags. ID3 version 2 is not supported by the radios.

Playlist files are not supported. MP3 Pro files are not supported.

### Playback of MP3 Files

When a medium containing MP3 data is loaded, the radio checks all files on the medium. If the medium contains a lot of folders or files, the radio will take more time to start playing the MP3 files.

Loading times for playback of MP3 files may be affected by the following:

- Media - CD-RW media may take longer to load than CD-R media
- Medium formats - Multisession discs may take longer to load than non-multisession discs
- Number of files and folders - Loading times will increase with more files and folders

To increase the speed of disc loading, it is recommended to use CD-R media and single-session discs. To create a single-session disc, enable the Disc at Once option before writing to the disc.

## Operation Instructions - (CD Mode for MP3 Audio Play)

### SEEK Button (CD Mode for MP3 Play)

Pressing the right side of the SEEK button plays the next MP3 File. Pressing the left side of the SEEK button plays the beginning of the MP3 file. Pressing the button within the first ten seconds plays the previous file.

### LOAD/EJECT Button (CD Mode for MP3 Play)

#### LOAD/ EJECT - Load



Press the LOAD/ EJECT button and the push-button with the corresponding number where the CD is being loaded. The radio will display PLEASE WAIT and prompt when to INSERT DISC. After the radio displays "LOAD DISC" insert the CD into the player.

Radio display will show "LOADING DISC" when the disc is loading.

#### LOAD / EJECT - Eject



Press the LOAD/ EJECT button and the push-button with the corresponding number where the CD was loaded and the disc will unload and move to the entrance for easy removal. Radio display will show "EJECTING DISC" when the disc is being ejected and prompt the user to remove the disc.

If you have ejected a disc and have not removed it within 15 seconds, it will be reloaded. If the CD is not removed, the radio will continue to play the non-removed CD. If the CD is removed and there are other CD's in the radio, the radio will play the next CD after a 2 minute timeout. If the CD is removed and there are no other CD's in the radio, the radio will remain in CD mode and display "INSERT DISC" for 2 minutes. After 2 minutes the radio will go to the previous tuner mode.



**MSG or INFO Button (CD Mode for MP3 Play)**

Press and MSG or INFO button while playing MP3 disc. The radio scrolls through the following TAG information: Song Title, Artist, File Name, and Folder Name (if available).

Press the MSG or INFO button once more to return to "elapsed time" priority mode.

Press and hold the MSG or INFO button while in the message display priority mode or elapsed time display priority mode will display the song title for each file.

**RW/FF (CD Mode for MP3 Play)**

Press the FF side of the button to move forward through the MP3 selection.

**TUNE Control (CD Mode for MP3 Play)**

Pressing the TUNE Control allows the adjustment of Tone, Balance, and Fade.

**AM/FM Button (CD Mode for MP3 Play)**

Switches back to Radio mode.

**RND/ PTY Button (CD Mode for MP3 Play)**

Pressing this button plays files randomly.

**SET/DIR Button (CD Mode for MP3 Play)**

Press the SET/DIR Button to display folders, when playing an MP3 discs that have a file/folder structure. Turn the TUNE control to display available folders or move through available folders. Press the TUNE control to select a folder.

**Buttons 1 - 6 (CD Mode for MP3 Play)**

Selects disc positions 1 - 6 for Play/Load/Eject.

**Operating Instructions - Hands Free Phone (If Equipped)**

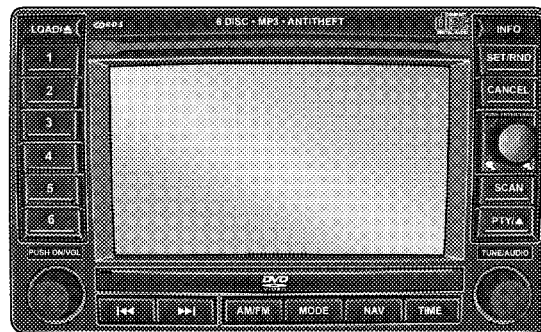
Refer to Hands Free Phone in Section 3 of the Owner's Manual.

**Operating Instructions - Satellite Radio Mode (If Equipped)**

Refer to the Satellite Radio section of the Owner's Manual.

**Operating Instructions - Video Entertainment System (VES®) (If Equipped)**

Refer to separate Video Entertainment System (VES®) Guide.

**SALES CODE REC — AM/FM/CD (6-DISC) RADIO WITH NAVIGATION SYSTEM**

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Satellite Navigation Radio with CD Player with MP3 Capability (REC) - combines a Global-Positioning System-based navigation system with an integrated color screen to provide maps, turn identification, selection

menus and instructions for selecting a variety of destinations and routes, AM/FM stereo radio and six-disc CD changer with MP3 capability.

Mapping information for navigation is supplied on a DVD that is loaded into the unit. One map DVD covers all of North America. Refer to your “Navigation User’s Manual” for detailed operating instructions.

### Operating Instructions — Satellite Radio (If Equipped)

Refer to your “Navigation User’s Manual” for detailed operating instructions.

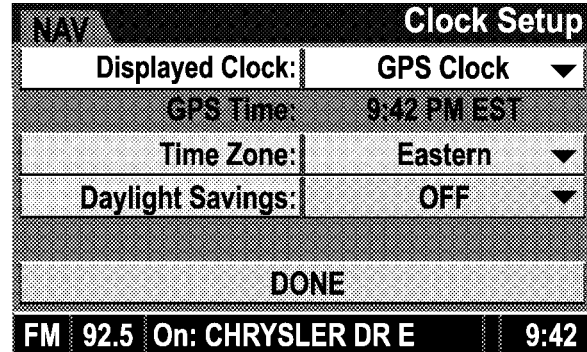
### REC Setting the Clock

#### GPS Clock

The GPS receiver used in this system is synchronized to the time data being transmitted by the GPS satellites. The satellites’ clock is Greenwich Mean Time (GMT). This is

the worldwide standard for time. This makes the system’s clock very accurate once the appropriate time zone and daylight savings information is set.

1. At the **Main Menu** screen, highlight “Clock Setup” and press ENTER **OR** press and hold for 3 seconds the TIME button on the unit’s faceplate. The **Clock Setup** screen appears.



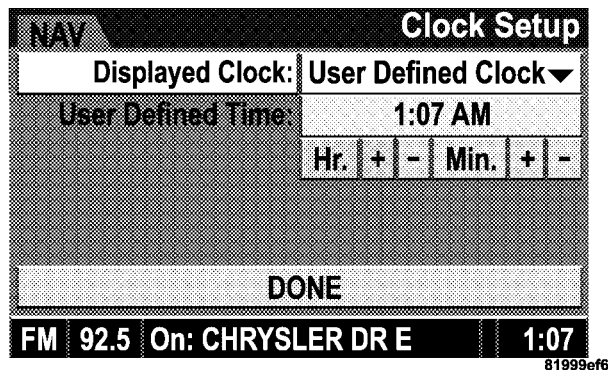
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2. To show the GPS clock, select “Displayed Clock: GPS Clock” and press ENTER.
3. To adjust the time zone, Select “Time Zone” and press ENTER. Select the appropriate time zone and press ENTER.
4. To turn daylight savings on or off, select “Daylight Savings” and press ENTER. Select “On” or “Off” and press ENTER.
5. Select DONE to exit from the clock setting mode. Press ENTER to save your changes. If you press CANCEL or NAV then your changes will not be saved.

### User Defined Clock

If you wish to set the clock to a time different than the system clock, you can manually adjust the time by choosing the “User Defined Clock” option.

1. At the **Clock Setup** screen highlight “Displayed Clock: User Defined Clock”.



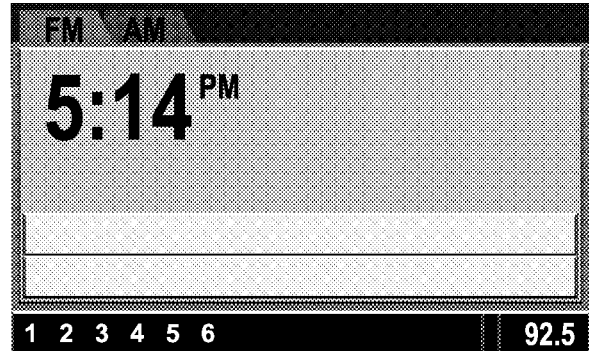
2. To increase the clock by hours, make sure “HR +” is highlighted and press ENTER. Press ENTER again to increase the clock by another hour. You will see on the “User Defined Time” display the number of hours you have increased the clock by.

3. To decrease the clock by one hour, use the Select Encoder to highlight the “-” sign. Press ENTER. Press ENTER again to decrease the clock by another hour.
4. To increase the clock by minutes, make sure “MIN +” is highlighted and press ENTER. Press ENTER again to increase the clock by another minute.
5. To decrease the clock by minutes, use the Select Encoder to highlight the “-” sign. Press ENTER. Press ENTER again to decrease the clock by another minute.
6. Select “DONE” to exit from the clock setting mode. Press ENTER to save your changes. If you press CANCEL or NAV then your changes will not be saved.

### Audio Clock Display

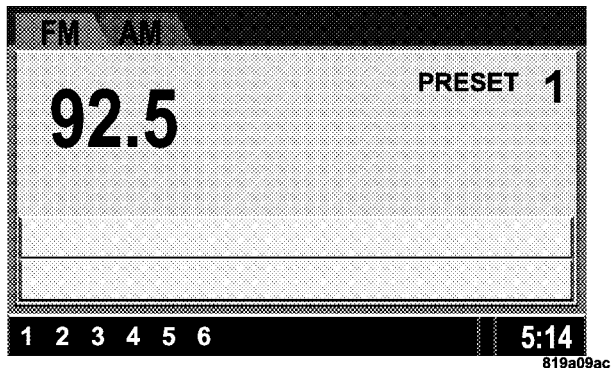
Select this option to change the size of the clock on the audio screens.

1. When you are at an audio screen, quickly press the TIME button on the navigation faceplate.
2. In this example the large clock appears on the screen.



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3. To switch the clock to the small clock, quickly press TIME again.



4. To toggle back to the large clock, simply press TIME.

### SATELLITE RADIO — IF EQUIPPED

Satellite radio uses direct satellite to receive broadcasting technology to provide clear digital sound, coast to coast. The subscription service provider is Sirius™ Satellite Radio. This service offers over 100 channels of music, sports, news, entertainment, and programming for children, directly from its satellites and broadcasting studios.

#### System Activation

To activate your Sirius Satellite Radio service, call the toll-free number 888-539-7474, or visit the Sirius web site at [www.sirius.com](http://www.sirius.com). Please have the following information available when activating your system:

1. The Electronic Serial Number/Sirius Identification Number (ESN/SID).
2. Credit card information.
3. Your Vehicle Identification Number.

### **Electronic Serial Number/Sirius Identification Number (ESN/SID)**

The Electronic Serial Number/Sirius Identification Number is needed to activate your Sirius Satellite Radio system. To access the ESN/SID, refer to the following steps:

#### **ESN/SID Access With REF Radios**

With the ignition switch in the ACCESSORY position and the radio OFF, press the CD Eject and Time buttons simultaneously for 3 seconds. The first four digits of the twelve-digit ESN/SID number will be displayed. Press the SEEK UP button to display the next four digits. Continue to press the SEEK UP button until all twelve ESN/SID digits have been displayed. The SEEK DOWN will page down until the first four digits are displayed. The radio will exit the ESN/SID mode when any other button is pushed, the ignition is turned OFF, or 5 minutes has passed since any button was pushed.

#### **ESN/SID Access With RAQ Radios**

With the ignition switch in the ACCESSORY position and the radio OFF, press the CD Eject and TIME buttons simultaneously for 3 seconds. All twelve ESN/SID numbers will be displayed. The radio will exit the ESN/SID mode when any other button is pushed, the ignition is turned OFF, or 5 minutes has passed since any button was pushed.

#### **ESN/SID Access With Navigation Radios**

Please refer to your Navigation User's Manual.

#### **Selecting Satellite Mode in REF, and RAQ, Radios**

##### **Selecting Satellite Mode — REF Radio**

Press the MODE button repeatedly until the word "SAT" appears in the display.

A CD may remain in the radio while in the Satellite radio mode.

**Selecting Satellite Mode — RAQ Radio**

Press the MODE button repeatedly until the word "SAT" appears in the display.

These radios will also display the current station name and program type. For more information such as song title and artist press the MSG or INFO button.

A CD or tape may remain in the radio while in the Satellite radio mode.

**Selecting a Channel**

Press and release the SEEK or TUNE knob to search for the next channel. Press the top of the button to search up and the bottom of the button to search down. Holding the TUNE button causes the radio to bypass channels until the button is released.

Press and release the SCAN button (if equipped) to automatically change channels every 7 seconds. The radio will pause on each channel for 7 seconds before moving on to the next channel. The word "SCAN" will appear in the display between each channel change. Press the SCAN button a second time to stop the search.

**NOTE:** Channels that may contain objectionable content can be blocked. Contact Sirius Customer Care at 888-539-7474 to discuss options for channel blocking or unblocking. Please have your ESN/SID information available.

**Storing and Selecting Pre-Set Channels**

In addition to the 12 AM and 12 FM pre-set stations, you may also commit 12 satellite stations to push button memory. These satellite channel pre-set stations will not erase any AM or FM pre-set memory stations. Follow the memory pre-set procedures that apply to your radio.



**Using the PTY (Program Type) Button (if equipped)**

Follow the PTY button instructions that apply to your radio.

**PTY Button "SCAN"**

When the desired program type is obtained, press the "SCAN" button within five seconds. The radio will play 7 seconds of the selected channel before moving to the next channel of the selected program type. Press the "SCAN" button a second time to stop the search.

**NOTE:** Pressing the "SEEK" or "SCAN" button while performing a music type scan will change the channel by one and stop the search. Pressing a pre-set memory button during a music type scan, will call up the memory channel and stop the search.

**PTY Button "SEEK"**

When the desired program is obtained, press the "SEEK" button within five seconds. The channel will change to the next channel that matches the program type selected.

**Satellite Antenna**

To ensure optimum reception, do not place items on the roof around the rooftop antenna location. Metal objects placed within the line of sight of the antenna will cause decreased performance. Larger luggage items should be placed as far forward as possible. Do not place items directly on or above the antenna. The luggage rack (if equipped), should also not be positioned directly above the antenna.

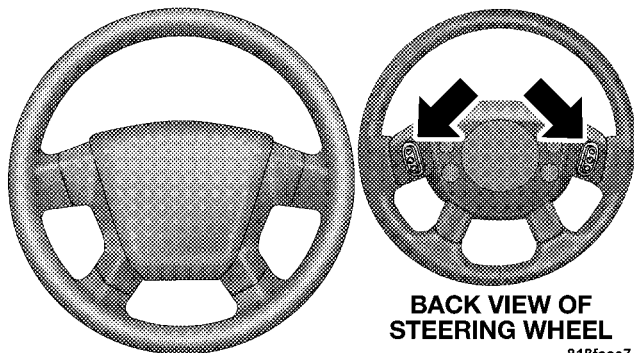
**Reception Quality**

Satellite reception may be interrupted due to one of the following reasons.

- The vehicle is parked in an underground parking structure or under a physical obstacle.
- Dense tree coverage may interrupt reception in the form of short audio mutes.
- Driving under wide bridges or along tall buildings can cause intermittent reception.
- Placing objects over or too close to the antenna can cause signal blockage.

**REMOTE SOUND SYSTEM CONTROLS — IF EQUIPPED**

The remote sound system controls are located on the rear surface of the steering wheel. Reach behind the wheel to access the switches.



818fcae7

The right hand control is a rocker type switch with a push button in the center. Pressing the top of the switch will increase the volume and pressing the bottom of the switch will decrease the volume.

The button located in the center of the right hand control will switch modes to Radio or CD.

The left hand control is a rocker type switch with a push button in the center. The function of the left hand control is different depending on which mode you are in.

The following describes the left hand control operation in each mode.

### **Radio Operation**

Pressing the top of the switch will SEEK up for the next listenable station and pressing the bottom of the switch will SEEK down for the next listenable station.

The button located in the center of the left hand control will tune to the next pre-set station that you have programmed in the radio pre-set push-buttons.

### **CD Player**

Pressing the top of the switch once will go to the next track on the CD. Pressing the bottom of the switch once will go to the beginning of the current track or to the beginning of the previous track if it is within one second after the current track begins to play.

If you press the switch up or down twice it plays the second track, three times, it will play the third, etc.

The button in the center of the left hand switch changes CD's on the 6-Disc in-dash CD changer radio. This button does not function for all other radios.

**CD/DVD DISC MAINTENANCE**

To keep the CD/DVD discs in good condition, take the following precautions:

1. Handle the disc by its edge; avoid touching the surface.
2. If the disc is stained, clean the surface with a soft cloth, wiping from center to edge.
3. Do not apply paper, paper CD labels, or tape to the disc; avoid scratching the disc.
4. Do not use solvents such as benzine, thinner, cleaners, or antistatic sprays.
5. Store the disc in its case after playing.
6. Do not expose the disc to direct sunlight.
7. Do not store the disc where temperatures may become too high.

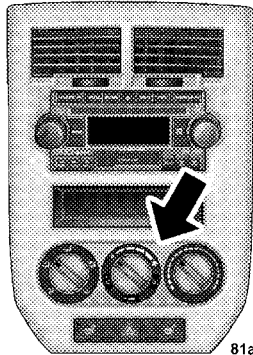
**RADIO OPERATION AND CELLULAR PHONES**

Under certain conditions, the cellular phone being ON in your vehicle can cause erratic or noisy performance from your radio. This condition may be lessened or eliminated by relocating the cellular phone antenna. This condition is not harmful to the radio. If your radio performance does not satisfactorily “clear” by the repositioning of the antenna, it is recommended that the radio volume be turned down or off during cellular phone operation.

## CLIMATE CONTROLS

### Climate Controls

The Climate Control System allows you to balance the temperature, amount, and direction of air circulating throughout the vehicle. The controls are located on the instrument panel, below the radio.



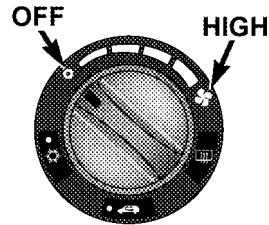
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Climate Control Location

The air conditioning system of your vehicle contains R-134a, a refrigerant that does not deplete the ozone layer in the upper atmosphere.

The controls are as follows:

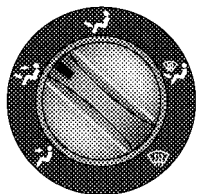
### Fan Control



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Use this control to regulate the amount of air forced through the system in any mode you select. The fan speed increases as you move the control to the right from the OFF position.


### Mode Control (Air Direction)




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The mode control allows you to choose from several patterns of air distribution. You can select either a primary mode, as identified by the symbols, or a blend of two of these modes. The closer the control is to a particular mode, the more air distribution you receive from that mode.

#### **Panel**


 Air is directed through the outlets in the instrument panel. These outlets can be adjusted to direct air flow.

#### **Bi-Level**


 Air is directed through the panel and floor outlets.

**NOTE:** There is a difference in temperature between the upper and lower outlets for added comfort. The warmer air goes to the floor outlets. This feature gives improved comfort during sunny but cool conditions.


#### **Floor**

 Air is directed through the floor outlets and side window demist outlets with a small amount through the defrost outlet.

#### **Mix**

 Air is directed through the floor, defrost and side window demist outlets. This setting works best in cold or snowy conditions that require extra heat at the windshield. This setting is good for maintaining comfort while reducing moisture on the windshield.

#### **Defrost**

 Air is directed through the windshield and side window demist outlets. Use this mode with maximum fan and temperature settings for best windshield and side window defrosting.

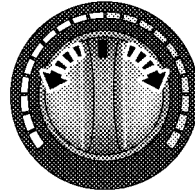
**NOTE:** The air conditioning compressor operates in both Mix and Defrost or a blend of these modes even if the Air Conditioning Snowflake button is not pressed. This dehumidifies the air to help dry the windshield. To improve fuel economy, use these modes only when necessary.

### Air Outlets

The airflow from each of the instrument panel outlets can be adjusted for direction and turned on or off to control air flow.

**NOTE:** For maximum airflow to the rear seat passengers, the center instrument panel outlets can be aimed, so that the left center outlet is directed toward the right rear passenger and the right center outlet is directed toward the left rear passenger.

### Temperature Control



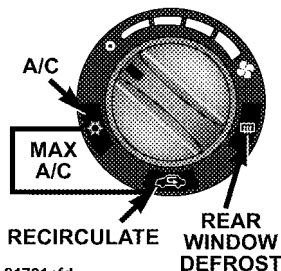
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Use this control to regulate the temperature of the air inside the passenger compartment. The blue area of the scale indicates cooler temperatures while the red area indicates warmer temperatures.

**NOTE:** If your air conditioning performance seems lower than expected, check the front of the A/C condenser: located in front of the radiator, for an accumulation of dirt or insects. Clean with a gentle water spray from behind the radiator and through the condenser. Fabric front fascia protectors may reduce air flow to the condenser, reducing air conditioning performance.

## Air Conditioning

### MAX A/C

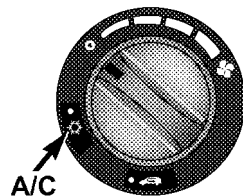


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For maximum cooling use the A/C and recirculate buttons at the same time.

**NOTE:** See “Circulation Control” later in this section, for proper or extended use of this position.

### Air Conditioning (Normal)



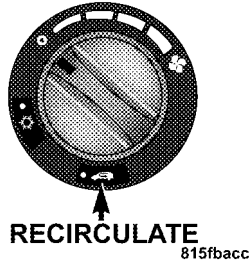
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Use this button to engage the Air Conditioning. A lamp will illuminate when the Air Conditioning System is engaged. Once the air conditioning is engaged, use a combination of the mode control, fan speed control, and temperature control to achieve your desired interior temperature.

**NOTE:** The air conditioning compressor will not engage until the engine has been running for about 10 seconds.



### Circulation Control



Use this button to choose between outside air intake or recirculation of the air inside the vehicle. A lamp will illuminate when you are in recirculate mode. Only use the recirculate mode to temporarily block out any outside odors, smoke, or dust and to cool the interior rapidly upon initial start up in very hot or humid weather.

**NOTE:** Continuous use of the recirculate mode may make the inside air stuffy and window fogging may occur. Extended use of this mode is not recommended.

In cold or damp weather, the use of the Recirculate position will cause windows to fog on the inside because










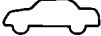




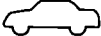













of moisture build up inside the vehicle. For maximum defogging, select the Outside Air position.

**NOTE:** Recirculation Mode will not operate in floor, mix or defrost modes.

### Air Filtration System – If Equipped

An air filter is included in the optional Security Group. Filter media includes a particle filtration layer and a charcoal layer. The filter will reduce, but not eliminate, diesel and agricultural smells. The filter acts only on air coming from outside the vehicle; it does not filter air inside the passenger compartment. See the maintenance schedule for the filter change interval. The air filter change interval coincides with engine oil and filter change intervals. As with oil changes, the interval is shorter for heavy duty service or dusty conditions. See your authorized dealer for service.

## Operating Tips

WEATHER	CONTROL SETTINGS
<p>HOT WEATHER AND VEHICLE INTERIOR IS VERY HOT</p>  	<p>Open the windows, start the vehicle, press the  button to turn recirculate off. Set the Fan control to the high position (full clockwise) position. Press the  button. Set the Mode control at or between  and . Set the temperature control to full cool. After the hot air is pushed from the vehicle press the  button to turn recirculate on and roll up the windows. Once you are comfortable, press the  button to turn recirculate off and adjust the temperature control for comfort.</p>
<p>WARM WEATHER</p>  	<p>Press the  button to turn recirculate off. If it's sunny, set the Mode control at or near  and turn the air conditioning on. If it's cloudy or dark, set the Mode control at or near .</p>
<p>COOL OR COLD HUMID CONDITIONS</p>  	<p>Press the  button to turn recirculate off. If it's sunny, set the Mode control at or between  and  then turn the air conditioning on. If it's cloudy or dark, set the Mode control at or near  and turn the air conditioning on. If the windows begin to fog, set Mode control at or between  and .</p>
<p>COLD DRY CONDITIONS</p>  	<p>Press the  button to turn recirculate off. Set the Mode control at or near . If it is sunny, you may want more upper air. In this case, set the Mode control at or between  and . In very cold weather, if you need extra heat at the windshield, set the Mode control at or near the .</p>

### Window Fogging

Vehicle side windows tend to fog on the inside in mild rainy or humid weather. To clear the windows, set mode to the mix or defrost position. Direct the panel outlets toward the side windows. Do not use recirculate without A/C for long periods as fogging may occur.

Interior fogging on the windshield can be quickly removed by using the defrost position.

If the fogging problem persists, clean the inside window surfaces. The cause of undue fogging may be dirt collecting on the inside surface of the glass.



**NOTE:** In cold weather, the use of the recirculate position will cause windows to fog on the inside because of moisture build up inside the vehicle. For maximum defogging, press the recirculation button until recirculate is off.

### Summer Operation

Air conditioned vehicles must be protected with a high-quality antifreeze coolant to provide proper corrosion protection and to raise the boiling point of the coolant for protection against overheating. A 50% concentration is recommended.

### Outside Air Intake

When operating the system during the winter months, make sure the air intake, directly in front of the windshield, is free of ice, slush, snow or other obstructions such as leaves. Leaves collected in the air-intake plenum may reduce air flow and plug the plenum water drains.

The blower air will heat faster in cold weather if you use only a low blower speed for the first few minutes of vehicle operation.

**Side Window Demisters**

A side window demister outlet is at each end of the instrument panel. These nonadjustable outlets direct air toward the side windows when the system is in either the FLOOR, MIX, or DEFROST mode. The air is directed at the area of the windows through which you view the outside mirrors.

# STARTING AND OPERATING

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## STARTING PROCEDURES

Before starting your vehicle, adjust your seat, adjust both inside and outside mirrors, and fasten your seat belts.

### WARNING!

**Never leave children alone in a vehicle. Leaving children in a vehicle unattended is dangerous for a number of reasons. A child or others could be seriously or fatally injured. Don't leave the keys in the ignition. A child could operate power windows, other controls, or move the vehicle.**

### Manual Transaxle

Before starting the engine fully apply the parking brake, press the clutch pedal to the floor, and place the gear selector in N (Neutral).

**NOTE:** The engine will not start unless the clutch pedal is pressed to the floor.

**NOTE:** If key won't turn and steering wheel is locked, rotate the wheel in either direction to relieve pressure on the locking mechanism and then turn the key.

### Automatic Transaxle

The gear selector must be in the P (Park) or N (Neutral) position before you can start the engine. Apply the brakes before shifting to any driving gear.

**NOTE:** You must press the brake pedal before shifting out of P (Park).

### Normal Starting

Normal starting of either a cold or a warm engine does not require pumping or depressing the accelerator pedal. Simply turn the ignition switch to the "START" position and release when the engine starts. If the engine fails to

start within 15 seconds, turn the ignition switch to the “OFF” position, wait 10 to 15 seconds, then repeat the normal starting procedure.

### **WARNING!**

**Do not attempt to push or tow your vehicle to get it started. Vehicles equipped with an automatic trans-axle cannot be started this way. Unburned fuel could enter the catalytic converter and once the engine has started, ignite and damage the converter and vehicle. If the vehicle has a discharged battery, booster cables may be used to obtain a start from another vehicle. This type of start can be dangerous if done improperly, so follow the procedure carefully. See section 6 of this manual for jump starting instructions.**

### **Extremely Cold Weather (below –20°F or –29°C)**

To insure reliable starting at these temperatures, use of an externally powered electric engine block heater (available from your dealer) is recommended.

### **If Engine Fails to Start**

If the engine fails to start after you have followed the “NORMAL STARTING” procedure, it may be flooded. Push the accelerator pedal all the way to the floor and hold it there. Crank the engine for no more than 15 seconds. This should clear any excess fuel in case the engine is flooded. Leave the ignition key in the ON position, release the accelerator pedal and repeat the “NORMAL STARTING” procedure.

**WARNING!**

Never pour fuel or other flammable liquid into the throttle body air inlet opening in an attempt to start the vehicle. This could result in flash fire causing serious personal injury.

**CAUTION!**

To prevent damage to the starter, do not crank the engine for more than 15 seconds at a time. Wait 10 to 15 seconds before trying again.

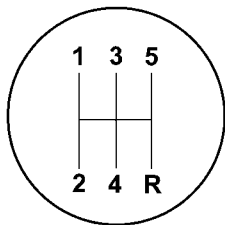
**After Starting**

The idle speed will automatically decrease as the engine warms up.

**MANUAL TRANSAXLE — IF EQUIPPED****WARNING!**

You or others could be injured if you leave the vehicle unattended without having the parking brake fully applied. The parking brake should always be applied when the driver is not in the vehicle, especially on an incline.

Fully depress the clutch pedal before you shift gears. As you release the clutch pedal, lightly depress the accelerator pedal.



5 – Speed Shift Pattern

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Use each gear in numerical order - do not skip a gear. Be sure the transaxle is in 1st gear, (not 3rd), when starting from a standing position. Damage to the clutch can result from starting in 3rd gear.

For most city driving you will find it easier to use only the lower gears. For steady highway driving with light accelerations, 5th gear is recommended.

Never drive with your foot resting on the clutch pedal, or try to hold the vehicle on a hill with the clutch pedal partially engaged. This will cause abnormal wear on the clutch.

Never shift into R (Reverse) until the vehicle has come to a complete stop.

**NOTE:** During cold weather, until the transaxle lubricant is warm, you may experience slightly higher shift efforts. This is normal and not harmful to the transaxle.

### Recommended Shift Speeds

To use your manual transaxle for optimal fuel economy, it should be upshifted as listed in table.

Manual Transaxle Recommended Shift Speeds Units in mph (km/h)					
Engine Size	Acceleration Rate	1 to 2	2 to 3	3 to 4	4 to 5
All Engines	Accel	14 (23)	23 (37)	29 (47)	45 (72)
	Cruise	12 (19)	18 (29)	25 (40)	32 (52)

### Downshifting

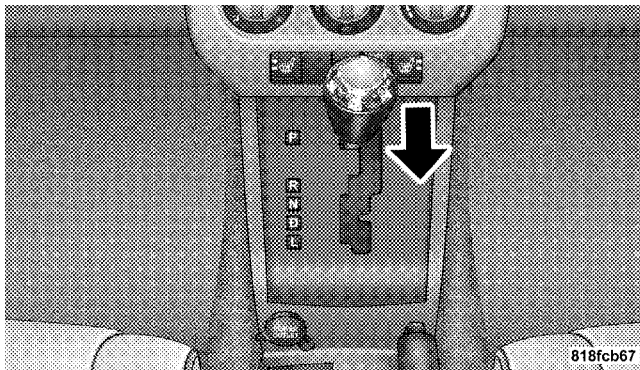
Proper downshifting will improve fuel economy and prolong engine life.

### CAUTION!

**If you skip more than one gear while downshifting or downshift at too high a vehicle speed, you could damage the engine, transmission, or clutch.**

To maintain a safe speed and prolong brake life, shift down to 2nd or 1st gear when descending a steep grade.

When turning a corner, or driving up a steep grade, downshift early so that the engine will not be overburdened.

**AUTOMATIC TRANSAXLE — IF EQUIPPED****Automatic Shift Lever****CAUTION!**

**Damage to the transaxle may occur if the following precautions are not observed:**

- Shift into P (Park) only after the vehicle has come to a complete stop.
- Shift into or out of R (Reverse) only after the vehicle has come to a complete stop and the engine is at idle speed.
- Do not shift from R (Reverse), P (Park), or N (Neutral) into any forward gear when the engine is above idle speed.
- Before shifting into any gear, make sure your foot is firmly on the brake pedal.

**NOTE:** You **MUST** press and hold the brake pedal down while shifting out of P (Park).

**WARNING!**

It is dangerous to shift the selector lever out of P (Park) or N (Neutral) if the engine speed is higher than idle speed. If your foot is not firmly on the brake pedal, the vehicle could accelerate quickly forward or in reverse. You could lose control of the vehicle and hit someone or something. Only shift into gear when the engine is idling normally and when your right foot is firmly on the brake pedal.

**Brake/Transmission Interlock System**

This system prevents you from moving the gear shift out of P (Park) and into any gear unless the brake pedal is pressed. This system is active only while the ignition switch is in the ON or ACC positions. Always depress the **brake pedal first**, before moving the gear selector out of P (Park).

**NOTE:** If a malfunction occurs, the transaxle will not shift out of park. Battery power is required to release the brake/transmission interlock system. There is a removable plug in the right side of the shifter housing that allows you to insert your finger to override the system. The key must be in the ignition and in the on position to use the override lever. If this occurs obtain service as soon as possible.

**Automatic Transaxle Ignition Interlock System**

This system prevents the key from being removed unless the shift lever is in P (Park). It also prevents shifting out of P (Park) unless the key is in the ACC or ON positions, and the brake pedal is depressed.

**NOTE:** If a malfunction occurs, the system will trap the key in the ignition cylinder to warn you that this safety feature is inoperable. The engine can be started and stopped but the key cannot be removed until you obtain service.

### **Gear Ranges For Continuously Variable Automatic Transaxle (CVT)**

DO NOT race the engine when shifting from P (Park) or N (Neutral) positions into another gear range.

#### **P (Park)**

Supplements the parking brake by locking the transmission. The engine can be started in this range. Never use P (Park) while the vehicle is in motion. Apply the parking brake when leaving the vehicle in this range. Always apply the parking brake first, and then place the selector in P (Park) position.

#### **WARNING!**

**Unintended movement of a vehicle could injure those in and near the vehicle. As with all vehicles, you should never exit a vehicle while the engine is running. Before exiting a vehicle, you should always shift the vehicle into P (Park), remove the key from the ignition, and apply the parking brake. Once the key is removed from the ignition, the transmission shift lever is locked in the P (Park) position, securing the vehicle against unwanted movement. Furthermore, you should never leave children unattended inside a vehicle.**



The following indicators should be used to ensure that you have engaged the transmission shift lever into the P (Park) position:

- When shifting into P (Park), firmly move the lever all the way forward until it stops.
- Look at the shift indicator window on the shifter bezel to ensure it is in the P (Park) position.
- You must depress the brake pedal to move the shift lever out of the P (Park) position.

### CAUTION!

**Before moving the shift lever out of P (Park), you must turn the ignition from LOCK to ON so the steering wheel and shift lever are released. Otherwise, damage to the steering column or shifter could result. You must also depress the brake pedal.**

### **R (Reverse)**

Shift into this range only after the vehicle has come to a complete stop.

### **N (Neutral)**

Engine may be started in this range.

### **D (Drive)**

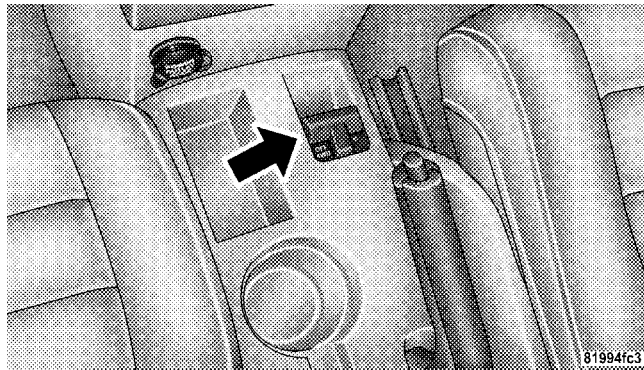
This should be used for most driving and provides the best ratio for optimum driveability, fuel economy, and performance.

### **L (Low)**

This range should be used for maximum engine braking when descending steep grades. In this range, the transaxle will ratio up only to prevent transaxle damage or engine over speed while ratioing down will occur as early as possible

### FOUR WHEEL DRIVE OPERATION — IF EQUIPPED

This feature provides full time, on-demand, Four Wheel Drive (4WD).



**Four Wheel Drive Switch**

Where one or more wheels have wheel spin or if additional traction is needed in sand, deep snow, or loose traction surfaces, activate the 4WD LOCK switch by pulling up once and releasing. This locks the center coupling allowing more torque to be sent to the rear wheels. The amber "4WD Indicator Light" will come on in the cluster. This can be done on the fly, at any vehicle speed. To deactivate, simply pull on the switch one more time. The "4WD Indicator Light" will then go out.

**NOTE:** Refer to "ESP (Electronic Stability Program) in the "Electronic Brake Control System" section of this manual for additional information.

## FREEDOM DRIVE II – SAFE OFF-ROAD DRIVING

### Off-Road Driving Tips and Vehicle Characteristics

The Freedom Drive II Off-Road Package has excellent on and off-road capabilities. These off-road capabilities will allow you to explore those wilderness trails where few travel, providing a source of exciting and satisfying recreation. Before you venture out you should contact your local governmental agency to determine what are the designated off-road vehicle (ORV) trails or recreation areas. You should always tread lightly and only use established roads, trails or ORV recreational areas. The National Forest Service, Bureau of Land Management or local Department of Natural Resources are a wealth of information and usually have maps with marked trails.

**NOTE:** For optimum off-road performance, premium fuel is recommended. However, your vehicle is equipped with an active spark knock system and can adjust the engine calibration for varying range of fuel octane levels.

### The Freedom Drive II Off-Road Package

The Freedom Drive II Off-Road Package provides excellent capability on and off-road.

#### *The package includes:*

- 2.4L DOHC 16-Valve I4 (172 bhp @ 6000 rpm, 165 lb-ft @ 4400 rpm)
- Second generation continuously variable transaxle (CVT2L) with 19:1 crawl ratio

- Tow Hooks: 2 front and 1 rear
- Front engine and transaxle skid plate
- Fuel tank skid plate
- Air filtration system
- Unique springs for a 1 inch of increased ride height
- Fog lamps
- Seat height adjust
- Three-mode Electronic Stability Program (ESP)
- Hill-descent control
- Unique off-road engine calibration for optimum off-road performance with premium fuel
- Off-road Brake Traction Control
- Unique off-road Anti-lock brake calibration
- Heavy duty cooling package (Eng/larger CVT oil cooler, High capacity cooling fans)
- Heavy duty alternator
- Improved body sealing and high located drivetrain component vents
- Reinforced rear lateral links

### Freedom Drive II 4WD System Operation

Under normal driving conditions, the vehicle operates in the active four wheel drive mode. Pulling up on the 4WD lock lever activates the 4WD system and lights the amber 4WD cluster light. This commands a higher torque to the rear wheels, for improved traction capability on slippery roads. The active four wheel drive mode has the same functionality with the Freedom Drive I system. Shifting the transaxle gear select lever into Low Off-Road mode with the 4WD lock lever active, lights the amber off-road and 4WD cluster lights. This off-road mode gives the combined benefits of a 19:1 crawl ratio, hill descent braking, optimum off-road performance with premium fuel, and off-road brake traction control for improved traction capability off-road. In low, the transaxle (CVT2L) initially maintains the 19:1 crawl ratio before changing ratio. This low ratio is ideal for crawling over obstacles.

### Freedom Drive II – Off-Road Features

The following are key off-road features which are active when the system has the 4WD lock lever engaged and is in the Low Off-Road mode.

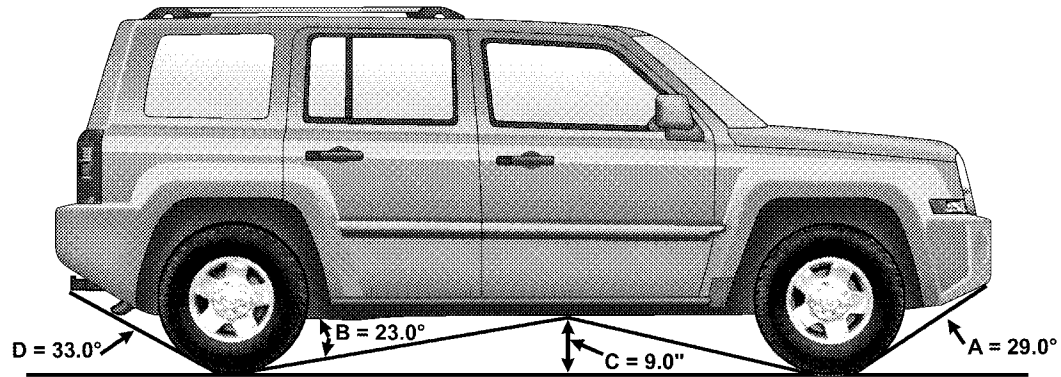
- **Hill Descent Braking** – Hill descent braking uses the vehicle braking system to provide a controlled descent down varying grades. This feature is only active when the system has the 4WD lock lever engaged and is in the Low Off-Road mode or reverse. Hill descent braking can be turned off by turning off ESP. The hill decent control speed varies between 4-6 mph (6 -10 km/h) forward, 3 mph (5 km/h) reverse.
- **Off-Road Brake Traction Control** – When conditions warrant, the vehicle braking system transfers torque from side to side. It does not control throttle input unlike normal traction control which is active in normal drive mode.

- **19.1 Crawl Ratio** – When the system has the 4WD lock lever engaged and is in the Low Off-Road mode, the CVT2L initially maintains the 19:1 crawl ratio before changing ratio. This low ratio is ideal for crawling over obstacles.
- **4WD Lock Mode** – Four wheel drive lock mode commands a higher torque to the rear wheels, for improved traction capability off-road. It also, turns on other system features in conjunction with L Off-Road mode.
- **Unique Engine Calibration** – When the system has the 4WD lock lever engaged and is in the Low Off-Road mode or reverse, the engine calibration

changes to run higher spark advance with premium fuel for optimum off-road performance. Your vehicle is equipped with an active spark knock system and can adjust the engine calibration for varying range of fuel octane levels.

### High Mobility Characteristics

The Freedom Drive II Off-Road package has high off-road mobility characteristics with an approach angle A= 29 degrees, a break-over angle B= 23 degrees, a running ground clearance C= 9 ins. (23 cm), a departure angle D= 33 degrees, and a turning circle of 35.6 ft. (11 m).



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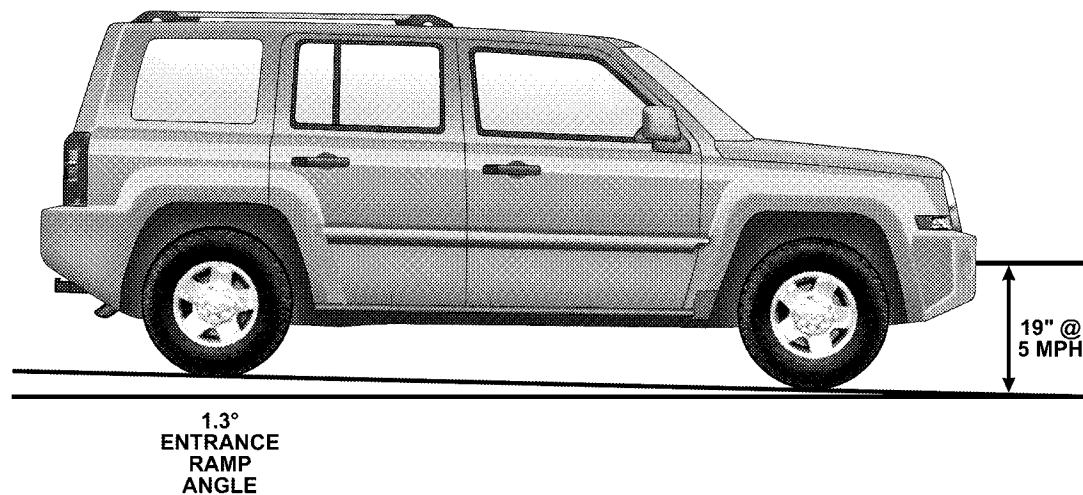
Angles A B C D

**Water Fording Characteristics**

Water fording characteristic is the vehicle's ability to cross a body of still water, where the powertrain and drivetrain are safe from water ingestion. The Freedom Drive II Off-Road package has high water fording characteristics

with the ability to cross a pool of water, without stopping, 19 ins. (48 cm) deep at a maximum speed of 5 mph (8 km/h) with an entrance ramp angle of 1.3 degrees.





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## Water Fording Characteristics

### The Basics of Off-Road Driving

You will encounter many types of terrain driving off-road. You should be familiar with the terrain and area before proceeding. There are many types of surface conditions: hard packed dirt, gravel, rocks, grass, sand, mud, snow and ice. Every surface has a different effect on your vehicle's steering, handling and traction. Controlling your vehicle is one of the keys to successful off-road driving, so always keep a firm grip on the steering wheel and maintain a good driving posture. Avoid sudden accelerations, turns or braking. In most cases there are no road signs, posted speed limits or signal lights. Therefore you will need to use your own good judgment on what is safe and what isn't. When on a trail you should always be looking ahead for surface obstacles and changes in terrain. The key is to plan your future driving route while remembering what you are currently driving over.

#### CAUTION!

**Never park your vehicle over dry grass or other combustible materials. The heat from your vehicle exhaust system could cause a fire.**

#### WARNING!

**Always wear your seat belt and firmly tie down cargo. Unsecured cargo can become projectiles in an off-road situation.**

### When To Use Low (L Off-Road) with the 4WD Lock Lever Engaged

When To Use Low (L Off-Road) with the 4WD Lock Lever Engaged When driving off-road, shift into low (L Off-Road) and activate the 4WD Lock. This will provide

additional traction and activates the numerous off-road features to improve handling and control on slippery or difficult terrain. Due to the sustained lower gearing, low (L Off-Road) with 4WD Lock engaged will allow the engine to operate in a higher power range. This will allow you to cross over obstacles and descend hills, with improved control and less effort.

### **Simultaneous Brake And Throttle Operation**

Many off-road driving conditions require the simultaneous use of the brake and throttle (two footed driving). When climbing rocks, logs, or other stepped objects, using light brake pressure with light throttle will keep the vehicle from jerking or lurching. This technique is also used when you need to stop and restart a vehicle on a steep incline.

### **Driving in Snow, Mud and Sand**

There is a drastic reduction in traction when driving in snow, mud or sand. The vehicle will be less responsive to steering, acceleration and braking inputs. Therefore you should accelerate slowly, leave greater stopping distances and avoid abrupt vehicle maneuvers. You want to keep a slow constant steady pace. The key is to maintain the vehicle's momentum.

- **Snow** – In heavy snow or for additional control and traction at slower speeds, activate the 4WD Lock and shift the transmission to a low (L Off-Road) if necessary. Don't shift to a lower gear than necessary to maintain headway. Over-revving the engine can spin the wheels and traction will be lost. If you start to slow to a stop, try turning your steering wheel no more than a 1/4; turn quickly back and forth, while still applying throttle. This will allow the tires to get a fresh "bite" and help maintain your momentum.

**CAUTION!**

**On icy or slippery roads, do not downshift at high engine rpm's or vehicle speeds because engine braking may cause skidding and loss of control.**

- **Mud** – Deep mud creates a great deal of suction around the tires and is very difficult to get through. You should use low (L Off-Road) with the 4WD Lock engaged and maintain your momentum. If you start to slow to a stop, try turning your steering wheel no more than a 1/4; turn quickly back and forth for additional traction. Mud holes pose an increased threat of vehicle damage and getting stuck. They are normally full of debris from previous vehicles getting stuck. As a good practice before entering any mud

hole, get out and determine how deep it is, if there are any hidden obstacles and if the vehicle can be safely recovered if stuck.

- **Sand** – Soft sand is very difficult to travel through with full tire pressure. When crossing soft sandy spots in a trail maintain your vehicle's momentum and do not stop. The key to driving in soft sand is to use the appropriate tire pressure, accelerating slowly, avoiding abrupt maneuvers and maintaining the vehicle's momentum. If you are going to be driving on large soft sandy areas or dunes, reduce your tire pressure to a minimum of 15 psi (103 kPa) to allow for a greater tire surface area. You should use low (L Off-Road) with the 4WD Lock engaged and ESP turned off. Reduced tire pressure will drastically improve your traction and handling, while driving on the soft sand, but you must return the tires to normal air pressure before driving

on pavement or other hard surfaces. Be sure you have a way to air the tires back up prior to reducing the pressure.

### **CAUTION!**

Reduced tire pressures may cause tire unseating and total loss of air pressure. To reduce the risk of tire unseating, while at a reduced tire pressure, reduce your speed and avoid sharp turns or abrupt maneuvers.

### **Crossing Obstacles (Rocks And Other High Points)**

While driving off road, you will encounter many types of terrain. These varying types of terrain bring different types of obstacles. Before proceeding review the path ahead to determine the correct approach and your ability to safely recover the vehicle if something goes wrong.

Keeping a firm grip on the steering wheel, bring the vehicle to a complete stop and then inch the vehicle forward until it makes contact with the object. Apply the throttle lightly while holding a light brake pressure and ease the vehicle up and over the object.

### **WARNING!**

Crossing obstacles can cause abrupt steering system loading which could cause you to loose control of your vehicle.

### **Using A Spotter**

There are many times where it is hard to see the obstacle or determine the correct path. Determining the correct path can be extremely difficult when you are confronting many obstacles. In these cases have someone guide you over, through, or around the obstacle. Have the person

stand a safe distance in front of you where they can see the obstacle, watch your tires and undercarriage, and guide you through.

### **Crossing Large Rocks**

When approaching large rocks, choose a path which ensures you drive over the largest of them with your tires. This will lift your undercarriage over the obstacle. The tread of the tire is tougher and thicker than the side wall and is designed to take the abuse. Always look ahead and make every effort to cross the large rocks with your tires.

#### **CAUTION!**

**Never attempt to straddle a rock that is large enough to strike your axles or undercarriage.**

#### **CAUTION!**

**Never attempt to drive over a rock which is large enough to contact the door sills.**

### **Crossing A Ravine, Gully, Ditch, Washout Or Rut**

When crossing a ravine, gully, ditch, washout or a large rut, the angled approach is the key to maintaining your vehicle's mobility. Approach these obstacles at a 45-degree angle and let each tire go through the obstacle independently. You need to use caution when crossing large obstacles with steep sides. Do not attempt to cross any large obstacle with steep sides at an angle great enough to put the vehicle at risk of a roll over. If you get caught in a rut, dig a small trench to the right or left at a 45-degree angle ahead of the front tires. Use the removed

dirt to fill the rut ahead of the turnout you just created. You should now be able to drive out following the trench you just created at a 45-degree angle.

### **WARNING!**

**There is an increased risk of roll over when crossing an obstacle, at any angle, with steep sides.**

### **Crossing Logs**

To cross a log, approach it at a slight angle (approximately 10 to 15 degrees). This allows one front tire to be on top of the log while the other just starts to climb the log. While climbing the log, modulate your brake and accelerator to avoid spinning the log out from under your tires. Then ease the vehicle off the log using your brakes.

### **CAUTION!**

**Do not attempted to cross a log with a greater diameter than the running ground clearance or the vehicle will become high centered.**

### **Getting High Centered**

If you get hung up or high centered on an object, get out of the vehicle and try to determine what the vehicle is hung up on, where it is contacting the underbody and what is the best direction to recover the vehicle. Depending on what you are in contact with, jack the vehicle up and place a few rocks under the tires so the weight is off of the high point when you let the vehicle down. You can also try rocking the vehicle or winching the vehicle off the object.

**CAUTION!**

**Winching or rocking the vehicle off hard objects increases the risk of underbody damage.**

**Hill Climbing**

Hill climbing requires good judgment and a good understanding of your abilities and your vehicle's limitations. Hills can cause serious problems. Some are just too steep to climb and should not be attempted. You should always feel confident with the vehicle and your abilities. You should always climb hills straight up and down. Never attempt to climb a hill on an angle.

- **Before Climbing A Steep Hill** – As you approach a hill consider its grade or steepness. Determine if it is too steep. Look to see what the traction is on the hill side trail. Is the trail straight up and down? What is on top and the other side? Are there ruts, rocks, branches

or other obstacles on the path? Can you safely recover the vehicle if something goes wrong? If everything looks good and you feel confident, then you should use low (L Off-Road) with the 4WD Lock engaged and proceed with caution maintaining your momentum as you climb the hill

- **Driving Up Hill** – Once you have determined your ability to proceed and have shifted into the appropriate gear, line your vehicle up for the straightest possible run. Accelerate with an easy constant throttle and apply more power as you start up the hill. Do not race forward into a steep grade, the abrupt change of grade could cause you to lose control. If the front end begins to bounce, ease off the throttle slightly to bring all four tires back on the ground. As you approach the crest of the hill ease off the throttle and slowly proceed over the top. If the wheels start to slip as you approach the crest of a hill, ease off the accelerator and maintain headway by turning the steering wheel no more than



a 1/4; turn quickly back and forth. This will provide a fresh "bite" into the surface and will usually provide enough traction to complete the climb. If you do not make it to the top, place the vehicle in reverse and back straight down the grade using engine resistance along with the vehicle brakes.

**WARNING!**

Never attempt to climb a hill at an angle or turn around on a steep grade. Driving across an incline increases the risk of a roll over, which may result in severe injury.

- **Driving Down Hill** – Before driving down a steep hill you need to determine if it is too steep for a safe descent. What is the surface traction? Is the grade too steep to maintain a slow controlled descent? Are there obstacles? Is it a straight descent? Is there plenty of

distance at the base of the hill to regain control if the vehicle descends too fast? If you feel confident in your ability to proceed then make sure you are in low (L Off-Road) with the 4WD Lock engaged and proceed with caution. Allow engine and hill descent braking to control the descent and apply your brakes if necessary, but do not allow the tires to lock.

**WARNING!**

Do not descend a steep grade in neutral. Use vehicle brakes in conjunction with engine braking. Descending a grade too fast could cause you to lose control and be seriously injured.

- **Driving Across An Incline** – If at all possible avoid driving across an incline. If it is necessary, know your vehicle's abilities. Driving across an incline places more weight on the down hill wheels, which increases

the possibilities of a down hill slide or roll over. Make sure the surface has good traction with firm and stable soils. If possible transverse the incline at an angle heading slightly up or down.

**WARNING!**

**Driving across an incline increases the risk of a roll over, which may result in severe injury.**

- **If You Stall Or Begin To Lose Headway** – If you stall or begin to lose headway while climbing a steep hill, allow your vehicle to come to a stop and immediately apply the brake. Restart the engine and shift to R (Reverse). Back slowly down the hill allowing engine and hill descent braking to control the descent and apply your brakes if necessary, but do not allow the tires to lock

**WARNING!**

**If the engine stalls or you lose headway or cannot make it to the top of a steep hill or grade, never attempt to turn around. To do so may result in tipping and rolling the vehicle, which may result in severe injury. Always back carefully straight down a hill in R (Reverse) gear. Never back down a hill in N (Neutral) using only the vehicle brakes. Never drive diagonally across a hill, always drive straight up or down.**

### Driving Through Water

Extreme care should be taken crossing any type of water. Water crossings should be avoided if possible and only be attempted when necessary, in a safe responsible manner. You should only drive through areas which are designated and approved. You should tread lightly and avoid damage to the environment. You should know your vehicles abilities and be able to recover it if something goes wrong. You should never stop or shut a vehicle off when crossing deep water unless you ingested water into the engine air intake. If the engine stalls do not attempt to restart it. Determine if it has ingested water first. The key to any crossing is low and slow. You want to use low (L Off-Road) with the 4WD Lock engaged and proceed very slowly with a constant slow speed {3-5 mph (5-8 km/h) maximum} and light throttle. Keep the vehicle moving; do not try to accelerate through the crossing. After crossing any water higher than the bottom of the axle differentials, you should inspect all of the vehicle fluids for signs of water ingestion.

### CAUTION!

**Water ingestion into the axles, transmission, transfer case, engine or vehicle interior can occur if you drive too fast or through too deep of water. Water can cause permanent damage to engine, driveline or other vehicle components and your brakes will be less effective once wet and/or muddy.**

- **Before You Cross Any Type Of Water** – As you approach any type of water you need to determine if you can cross it safely and responsibly. If necessary, get out and walk through the water or probe it with a stick. You need to be sure of its depth, approach angle, current and bottom condition. Be careful of murky or muddy waters, check for hidden obstacles. Make sure you will not be intruding on any wildlife and you can recover the vehicle if necessary. The key to a safe

crossing is the water depth, current and bottom conditions. On soft bottoms the vehicle will sink in, effectively increasing the water level on the vehicle. Be sure to consider this when determining the depth and the ability to safely cross

- **Crossing Puddles, Pools, Flooded Areas Or Other Standing Water** – Puddles, pools, flooded or other standing water areas normally contain murky or muddy waters. These water types normally contain hidden obstacles and make it difficult to determine an accurate water depth, approach angle, and bottom condition. Murky or muddy water holes are where you want to hook up tow straps prior to entering. This makes for a faster, cleaner and easier vehicle recovery. If you are able to determine you can safely cross, than proceed using the low and slow method.

### CAUTION!

**Muddy waters can reduce the cooling system effectiveness by depositing debris onto the radiator.**

- **Crossing Ditches, Streams, Shallow Rivers Or Other Flowing Water** – Flowing water can be extremely dangerous. Never attempt to cross a fast running stream or river even in shallow water. Fast moving water can easily push your vehicle downstream sweeping it out of control. Even in very shallow water, a high current can still wash the dirt out from around your tires putting you and your vehicle in jeopardy. There is still a high risk of personal injury and vehicle damage with slower water currents in depths greater than the vehicle's running ground clearance. You should never attempt to cross flowing water which is deeper than the vehicle's running ground clearance.

Even the slowest current can push the heaviest vehicle downstream out of control if the water is deep enough to push on the large surface area of the vehicle's body. Before you proceed determine the speed of the current, the water's depth, approach angle, bottom condition and if there are any obstacles, then cross at an angle heading slightly upstream using the low and slow technique.

### **WARNING!**

**Never drive through fast moving deep water. It can push your vehicle downstream, sweeping it out of control. This could put you and your passengers at risk of injury or drowning.**

### **Airing Down For Off-Road Driving**

Running lower tire pressure off-road can improve your ride comfort and vehicle traction. Reducing the tire air pressure allows the tire to bulge slightly, improving its surface area for better flotation and ability to mold or form to the ground contour. Different terrain, tires, and vehicles require different tire pressure. Hard surfaces like rock and heavier vehicles require higher pressures than softer surfaces such as sand and lighter vehicles. You will need to experiment to determine what is right for your situation. It is easier and faster to let air out than it is to replace it so, start high and lower it as required. Remember you must return the tires to normal air pressure before driving on road or at highway conditions. Be sure you have a way to return the tires to their normal on road air pressure.

**CAUTION!**

**Reduced tire pressure increases the risk of tire damage and may cause tire unseating with total loss of air pressure. To reduce the risk of tire unseating, while at a reduced tire pressure, drive at slower speeds and avoid sharp turns or abrupt maneuvers.**

**Vehicle Recovery**

If you drive off-road, you may encounter a situation where you will need to recover your vehicle. Vehicle recovery should always be given consideration before attempting a questionable obstacle. You should never go off-road driving without the ability to recover your vehicle from a situation. Having another vehicle with you usually works best for most situations. The first thing to do is assess the situation. Why are you stuck? Are you hung up on something? Would it be easier to go

forward or to go backward? Can you still move the vehicle? Are you alone or do you have another vehicle to help? Is there high risk of vehicle damage during the recovery process? Answering these questions will help you determine the best method of recovery. If you can still move the vehicle slightly and the only issue is slick ground, then rock cycling your vehicle would be the first choice. If you have ample room, an additional vehicle and there is low risk of vehicle impingement on the surroundings, then using a tow strap to the vehicle tow hooks would be fast and easy. If the vehicle is severely hung up or in a situation where great care needs to be taken during the recovery, then nothing can do the job better than a winch. If you are severely hung up on something you should jack the vehicle up and stack something under the wheels to allow the vehicle to roll off the object without causing further damage. This should be tried before attempting any recovery method.

**CAUTION!**

**Pulling the vehicle off an obstacle, without first clearing the object, may result in additional underbody damage.**

- **Rock Cycling Your Vehicle** – Rock cycling your vehicle is one of the easiest, fastest and most commonly used methods. This simply involves shifting your vehicle from drive to reverse, while applying throttle after each shift. During this process, for additional traction, try turning your steering wheel quickly back and forth no more than a 1/4 turn. If you are stuck in mud, sand, or snow try spinning your tires during this process to clean the debris from the tread and improve the traction. You want to create a rocking motion with the vehicle. This helps build vehicle momentum, which hopefully gets you out. Remember to ease off

and on the accelerator before and after the shift. If after a few rock cycles your vehicle is not free, stop and try another method of recovery. Continuous rock cycling will only cause unnecessary damage to your vehicle and the environment.

**CAUTION!**

**Damage can occur when spinning your tires at an excessive high speed. Do not spin your tires faster than an indicated 30 mph (48 km/h)**

- **Using The Tow Hooks With A Tow Strap** – Tow straps are a quick and easy way to recover your vehicle from minor situations if you have a secondary vehicle which is not stuck. The tow hooks on your vehicle are designed to take the abusive force generated during vehicle recovery. Do not use the bumper or any other vehicle component as an attachment

point. Using tow straps requires coordination between the two drivers. Good communication and line of sight are required for a safe recovery. First connect the tow strap to the correct attachment points on both vehicles. There should be a least 20 to 30 ft. (6 to 9 m) between the vehicles to allow for a safe recovery. If necessary join two tow straps together using a 1 1/2 in. (4 cm) hard wood dowel. This will keep the straps from becoming knotted and is safer than using a clevis pin if the strap breaks. Next have the tow vehicle backup, leaving 2 to 3 ft. (61 to 91 cm) worth of slack in the strap. Then the tow vehicle, using light throttle, should accelerate tightening the strap providing the pulling force needed to free the vehicle. The vehicle being recovered should assist in the recovery, at the time of the snap, by slowly spinning the tires in the same direction as the pulling vehicle. After the vehicle becomes free, the driver of the previously stuck vehicle should signal they are free and should hit their

brakes stopping both vehicles. The driver of the pulling vehicle should let off the throttle without using the brakes, once signaled by the other driver. This sequence is important to avoid having the recovered vehicle hit the pulling vehicle.

#### **WARNING!**

**Never use tow straps with end hooks or link two straps with a clevis pin. These heavy metal objects could become projectiles if a strap breaks, which could cause severe injury. Never leave more than 2 to 3 ft. (61 to 91 cm) of slack in the strap. More slack than this greatly increases the risk of injury and vehicle damage. Always keep everyone at least 30 ft. (9 m) away from a strapping or winching situation.**



**After Driving Off-Road**

Off-road operation puts more stress on your vehicle than does most on-road driving. After driving off-road, it is always a good idea to check for damage.

- Completely inspect the underbody of your vehicle. Check tires, body structure, steering, suspension, and exhaust system for damage.
- Check threaded fasteners for looseness, particularly on the chassis, drivetrain components, steering, and suspension. Retighten them, if required, and torque to the values specified in the Service Manual.
- Check for accumulations of plants or brush. These things could be a fire hazard, or they might hide damage to fuel lines, brake hoses, axle pinion seals, and propeller shafts.
- After extended operation in mud, sand, water, or similar dirty conditions, have brake drums and rotors, brake linings, and axle yokes inspected and cleaned as soon as possible.
- If you experience unusual vibration after driving in mud, slush or similar conditions, check the wheels for packed material. Packed foreign material can cause a wheel imbalance and cleaning the wheels will correct the situation.

**WARNING!**

Abrasive material in any part of the brakes may cause excessive wear or unpredictable braking. You might not have full braking power when you need it to prevent an accident. If you have been operating your vehicle in dirty conditions, get your brakes checked and cleaned as necessary. Failure to do so may result in serious injury.

**DRIVING ON SLIPPERY SURFACES****Acceleration**

Rapid acceleration on snow covered, wet, or other slippery surfaces may cause the front wheels to pull erratically to the right or left. This phenomenon occurs when there is a difference in the surface traction under the front (driving) wheels.

**WARNING!**

Rapid acceleration on slippery surfaces is dangerous. Unequal traction can cause sudden pulling of the front wheels. You could lose control of the vehicle and possibly have an accident. Accelerate slowly and carefully whenever there is likely to be poor traction (ice, snow, wet, mud, loose sand, etc.).

**Traction**

When driving on wet or slushy roads, it is possible for a wedge of water to build up between the tire and road surface. This is hydroplaning and may cause partial or complete loss of vehicle control and stopping ability. To reduce this possibility, the following precautions should be observed:

1. Slow down during rainstorms or when roads are slushy.

2. Slow down if road has standing water or puddles.
3. Replace tires when tread wear indicators first become visible.
4. Keep tires properly inflated.
5. Maintain enough distance between your vehicle and the vehicle in front of you to avoid a collision in a sudden stop.

## PARKING BRAKE

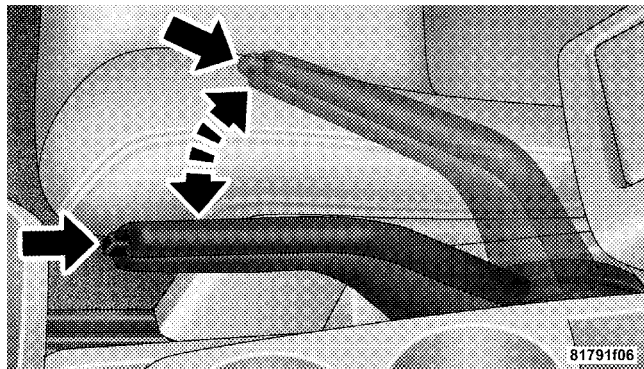
**BRAKE** When the parking brake is applied with the ignition on, the Brake Light in the instrument cluster will come on.

**NOTE:** This light only shows that the parking brake is on. It does not show the degree of brake application.

If the parking brake is applied while the vehicle is moving, a chime will sound to alert the driver. The chime will sound up to 10 times or until the vehicle has returned to a stop.

Before leaving the vehicle, make sure that the parking brake is set. To set the parking brake, pull up firmly on the lever. Also place the gear selector in the Park position (automatic transaxle) or Reverse (manual transaxle). To release the parking brake, apply the brake pedal, pull up slightly on the lever, then depress the button on the end of the lever and push the lever fully down toward the floor.

**NOTE:** The parking brake lever will not release unless the lever is pulled up slightly past its applied position.



**Parking Brake Lever**

When parking on a hill, it is important to set the parking brake before placing the gear selector in Park, otherwise the load on the automatic transaxle locking mechanism may make it difficult to move the selector out of Park. As

an added precaution, turn the front wheels toward the curb on a downhill grade and away from the curb on an uphill grade.

You should always apply the parking brake before leaving the vehicle.

#### **WARNING!**

- **Never leave children alone in a vehicle. Leaving children in a vehicle unattended is dangerous for a number of reasons. A child or others could be seriously or fatally injured. Don't leave the keys in the ignition. A child could operate power windows, other controls, or move the vehicle.**
- **Be sure the parking brake is fully disengaged before driving; failure to do so can lead to brake failure and an accident.**

## **BRAKE SYSTEM**

Your vehicle is equipped with power assisted brakes as standard equipment. In the event power assist is lost for any reason (for example, repeated brake applications with the engine off), the brakes will still function. However, the effort required to brake the vehicle will be much greater than that required with the power system operating.

### **WARNING!**

**Riding the brakes can lead to brake failure and possibly an accident. Driving with your foot resting or riding on the brake pedal can result in abnormally high brake temperatures, excessive lining wear, and possible brake damage. You wouldn't have your full braking capacity in an emergency.**

If either of the two hydraulic systems lose normal capability, the remaining system will still function with some loss of overall braking effectiveness. This will be evident by increased pedal travel during application and greater pedal force required to slow or stop. In addition, if the malfunction is caused by an internal leak, as the brake fluid in the master cylinder drops, the brake warning indicator will light.

### **WARNING!**

**Driving a vehicle with the brake light on is dangerous. A significant decrease in braking performance or vehicle stability during braking may occur. It will take you longer to stop the vehicle or will make your vehicle harder to control. You could have an accident. Have the vehicle checked immediately.**

**Anti-Lock Brake System (ABS) — If Equipped**

The Anti-Lock Brake System provides increased vehicle stability and brake performance under most braking conditions. The system automatically “pumps” the brakes during severe braking conditions to prevent wheel lock-up.

**WARNING!**

**Pumping of the Anti-Lock Brakes will diminish their effectiveness and may lead to an accident. Pumping makes the stopping distance longer. Just press firmly on your brake pedal when you need to slow down or stop.**

**WARNING!**

- **Anti-lock system (ABS) cannot prevent the natural laws of physics from acting on the vehicle, nor can it increase braking or steering efficiency beyond that afforded by the condition of the vehicle brakes and tires or the traction afforded.**
- **The ABS cannot prevent accidents, including those resulting from excessive speed in turns, following another vehicle too closely, or hydroplaning. Only a safe, attentive, and skillful driver can prevent accidents.**
- **The capabilities of an ABS equipped vehicle must never be exploited in a reckless or dangerous manner which could jeopardize the user's safety or the safety of others.**



The ABS light monitors the Anti-Lock Brake System. The light will come on when the ignition switch is turned to the ON position and may stay on for as long as four seconds.

If the ABS light remains on or comes on while driving, it indicates that the Anti-Lock portion of the brake system is not functioning and that service is required. However, the conventional brake system will continue to operate normally if the BRAKE warning light is not on.

If the ABS light is on, the brake system should be serviced as soon as possible to restore the benefits of Anti-Lock brakes. If the ABS light does not come on when the Ignition switch is turned to the ON position, have the bulb repaired as soon as possible.

If both the Brake Warning Light and the ABS Light remain on, the Anti-Lock brakes (ABS) and Electronic Brake Force Distribution (EBD) systems are not functioning. Immediate repair to the ABS system is required.

When the vehicle is driven over 7 mph (11 km/h), you may also hear a slight clicking sound as well as some related motor noises. These noises are the system performing its self check cycle to ensure that the ABS system is working properly. This self check occurs each time the vehicle is started and accelerated past 7 mph (11 km/h).

ABS is activated during braking under certain road or stopping conditions. ABS-inducing conditions can include ice, snow, gravel, bumps, railroad tracks, loose debris, or panic stops.

You also may experience the following when the brake system goes into Anti-lock:

- The ABS motor running (it may continue to run for a short time after the stop),
- the clicking sound of solenoid valves,
- brake pedal pulsations,

- and a slight drop or fall away of the brake pedal at the end of the stop.

These are all normal characteristics of ABS.

### **WARNING!**

**The Anti-Lock Brake System contains sophisticated electronic equipment that may be susceptible to interference caused by improperly installed or high output radio transmitting equipment. This interference can cause possible loss of anti-lock braking capability. Installation of such equipment should be performed by qualified professionals.**

All vehicle wheels and tires must be the same size and type and tires must be properly inflated to produce accurate signals for the computer.

### **POWER STEERING**

The standard power steering system will give you good vehicle response and increased ease of maneuverability in tight spaces. The system will provide mechanical steering capability if power assist is lost.

If for some reason the power assist is interrupted, it will still be possible to steer your vehicle. Under these conditions, you will observe a substantial increase in steering effort, especially at very low vehicle speeds and during parking maneuvers.

**NOTE:** Increased noise levels at the end of the steering wheel travel are considered normal and do not indicate that there is a problem with the power steering system.

Upon initial start-up in cold weather, the power steering pump may make noise for a short amount of time. This is due to the cold, thick fluid in the steering system. This noise should be considered normal, and it does not in any way damage the steering system.





- European Metric tire sizing is based on European design standards. Tires designed to this standard have the tire size molded into the sidewall beginning with the section width. The letter "P" is absent from this tire size designation. Example: 215/65R15 96H
- LT (Light Truck)-Metric tire sizing is based on U.S. design standards. The size designation for LT-Metric tires is the same as for P-Metric tires except for the letters "LT" that are molded into the sidewall preceding the size designation. Example: LT235/85R16.
- Temporary Spare tires are high-pressure compact spares designed for temporary emergency use only. Tires designed to this standard have the letter "T" molded into the sidewall preceding the size designation. Example: T145/80D18 103M.
- High Flotation tire sizing is based on U.S. design standards and it begins with the tire diameter molded into the sidewall. Example: 31x10.5 R15 LT.

## Tire Sizing Chart

EXAMPLE:	
<b>Size Designation:</b>	
<b>P</b>	= Passenger car tire size based on U.S. design standards
"....blank...."	= Passenger car tire based on European design standards
<b>LT</b>	= Light Truck tire based on U.S. design standards
<b>T</b>	= Temporary Spare tire
<b>31</b>	= Overall Diameter in Inches (in)
<b>215</b>	= Section Width in Millimeters (mm)
<b>65</b>	= Aspect Ratio in Percent (%) —Ratio of section height to section width of tire.
<b>10.5</b>	= Section Width in Inches (in)
<b>R</b>	= Construction Code —"R" means Radial Construction. —"D" means Diagonal or Bias Construction.
<b>15</b>	= Rim Diameter in Inches (in)

EXAMPLE:	
<b>Service Description:</b>	
<b>95</b> = Load Index	—A numerical code associated with the maximum load a tire can carry.
<b>H</b> = Speed Symbol	—A symbol indicating the range of speeds at which a tire can carry a load corresponding to its load index under certain operating conditions. —The maximum speed corresponding to the Speed Symbol should only be achieved under specified operating conditions (i.e. tire pressure, vehicle loading, road conditions, and posted speed limits).
<b>Load Identification:</b>	
<b>"...blank...."</b> = Absence of any text on sidewall of the tire indicates a Standard Load (SL) Tire	
<b>Extra Load (XL)</b> = Extra Load (or Reinforced) Tire	
<b>Light Load</b> = Light Load Tire	
<b>C,D,E</b> = Load range associated with the maximum load a tire can carry at a specified pressure	
<b>Maximum Load</b> — Maximum Load indicates the maximum load this tire is designed to carry.	
<b>Maximum Pressure</b> — Maximum Pressure indicates the maximum permissible cold tire inflation pressure for this tire.	

**Tire Identification Number (TIN)**

The TIN may be found on one or both sides of the tire; however, the date code may only be on one side. Tires with white sidewalls will have the full TIN including date code located on the white sidewall side of the tire.

Look for the TIN on the outboard side of black sidewall tires as mounted on the vehicle. If the TIN is not found on the outboard side then you will find it on the inboard side of the tire.

**EXAMPLE:****DOT MA L9 ABCD 0301****DOT** = Department of Transportation

—This symbol certifies that the tire is in compliance with the U.S. Department of Transportation tire safety standards, and is approved for highway use.

**MA** = Code representing the tire manufacturing location. (2 digits)**L9** = Code representing the tire size. (2 digits)**ABCD** = Code used by tire manufacturer. (1 to 4 digits)**03** = Number representing the week in which the tire was manufactured. (2 digits)

—03 means the 3rd week.

**01** = Number representing the year in which the tire was manufactured. (2 digits)

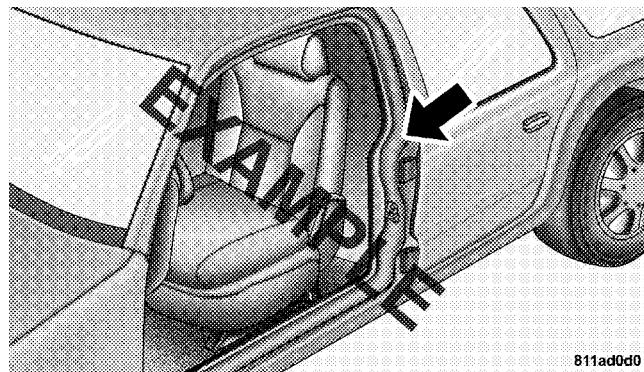
—01 means the year 2001.

—Prior to July 2000, tire manufacturers were only required to have 1 number to represent the year in which the tire was manufactured. Example: 031 could represent the 3rd week of 1981 or 1991.

## Tire Loading and Tire Pressure

### Tire Placard Location

**NOTE:** The proper cold tire inflation pressure is listed on either the face of the driver's door or the driver's side "B" pillar.



**Tire Placard Location**

## Tire and Loading Information Placard

**TIRE AND LOADING INFORMATION**

SEATING CAPACITY - TOTAL 5 FRONT 2 REAR 3

THE COMBINED WEIGHT OF OCCUPANTS AND CARGO SHOULD NEVER EXCEED XXX KG OR XXX LBS.

TIRE	FRONT	REAR	SPARE
ORIGINAL TIRE SIZE	P195/70R14	P195/70R14	T125/70D15
COLD TIRE INFLATION PRESSURE	200kPa, 29PSI	200kPa, 29PSI	420kPa, 60PSI

SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION

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### Tire and Loading Information

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This placard tells you important information about the:

- 1) number of people that can be carried in the vehicle
- 2) the total weight your vehicle can carry
- 3) the tire size designed for your vehicle
- 4) the cold tire inflation pressures for the front, rear, and spare tires.

**Loading**

The vehicle maximum load on the tire must not exceed the load carrying capacity of the tire on your vehicle. You will not exceed the tire's load carrying capacity if you adhere to the loading conditions, tire size, and cold tire inflation pressures specified on the "Tire and Loading Information" placard and in the "Vehicle Loading" section of this manual.

**NOTE:** Under a maximum loaded vehicle condition, gross axle weight ratings (GAWR's) for the front and rear axles must not be exceeded. For further information on GAWR's, vehicle loading, and trailer towing, refer to the "Vehicle Loading" section of this manual.

To determine the maximum loading conditions of your vehicle, locate the statement "The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs." on the Tire and Loading Information placard. The combined weight of occupants, cargo/luggage and trailer tongue weight (if applicable) should never exceed the weight referenced here.

***Steps for Determining Correct Load Limit***

1. Locate the statement "The combined weight of occupants and cargo should never exceed XXX pounds" on your vehicle's placard.
2. Determine the combined weight of the driver and passengers that will be riding in your vehicle.
3. Subtract the combined weight of the driver and passengers from XXX kilograms or XXX pounds.
4. The resulting figure equals the available amount of cargo and luggage load capacity. For example, if "XXX" amount equals 1400 lbs. and there will be five 150 lb. passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs. (since  $5 \times 150 = 750$ , and  $1400 - 750 = 650$  lbs.)
5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.

6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

**NOTE:** The following table shows examples on how to calculate total load, cargo/luggage, and towing capacities of your vehicle with varying seating configurations and number and size of occupants. This table is for illustration purposes only and may not be accurate for the seating and load carry capacity of your vehicle.

**NOTE:** For the following example, the combined weight of occupants and cargo should never exceed 865 lbs. (392 kg).



Occupants			Combined weight of occupants and cargo from Tire Placard	MINUS	Combined Occupant's weight	=	AVAILABLE Cargo/Luggage and Trailer Tongue Weight
TOTAL	FRONT	REAR					
<u>EXAMPLE 1</u>			865 lbs	minus	670 lbs	=	195 lbs
5	2	3					
<u>EXAMPLE 2</u>			865 lbs	minus	540 lbs	=	325 lbs
3	2	1					
<u>EXAMPLE 3</u>			865 lbs	minus	400 lbs	=	465 lbs
2	2	0					

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**WARNING!**

Overloading of your tires is dangerous. Overloading can cause tire failure, affect vehicle handling, and increase your stopping distance. Use tires of the recommended load capacity for your vehicle. Never overload them.

**TIRES — GENERAL INFORMATION****Tire Pressure**

Proper tire inflation pressure is essential to the safe and satisfactory operation of your vehicle. Three primary areas are affected by improper tire pressure:

**1. Safety—****WARNING!**

- Improperly inflated tires are dangerous and can cause accidents.
- Under inflation increases tire flexing and can result in tire failure.
- Over inflation reduces a tire's ability to cushion shock. Objects on the road and chuckholes can cause damage that result in tire failure.
- Unequal tire pressures can cause steering problems. You could lose control of your vehicle.
- Over inflated or under inflated tires can affect vehicle handling and can fail suddenly, resulting in loss of vehicle control.
- Unequal tire pressures from one side of the vehicle to the other can cause the vehicle to drift to the right or left.
- Always drive with each tire inflated to the recommended cold tire inflation pressure.

## 2. *Economy—*

Improper inflation pressures can cause uneven wear patterns to develop across the tire tread. These abnormal wear patterns will reduce tread life resulting in a need for earlier tire replacement. Under inflation, also increases tire rolling resistance and results in higher fuel consumption.

## 3. *Ride Comfort and Vehicle Stability—*

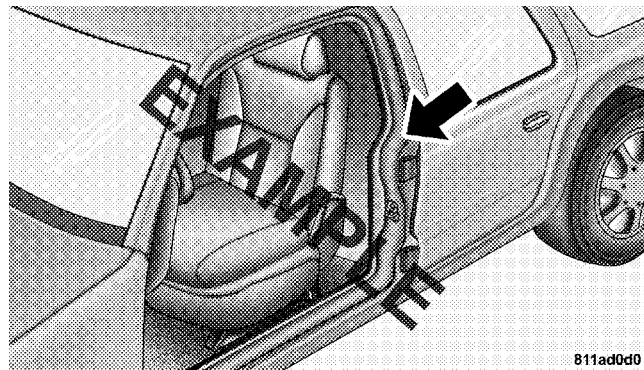
Proper tire inflation contributes to a comfortable ride. Over inflation produces a jarring and uncomfortable ride.

### **Tire Inflation Pressures**

The proper cold tire inflation pressure is listed either on the face of the driver's door or on the driver's side "B" pillar.

Some vehicles may have Supplemental Tire Pressure Information for vehicle loads that are less than the

maximum loaded vehicle condition. These pressure conditions will be found in the "Supplemental Tire Pressure Information" section of this manual.



**Tire Placard Location**

The pressure should be checked and adjusted as well as inspecting for signs of tire wear or visible damage at least once a month. Use a good quality pocket-type gauge to

check tire pressure. Do not make a visual judgement when determining proper inflation. Radial tires may look properly inflated even when they are under inflated.

### **CAUTION!**

**After inspecting or adjusting the tire pressure, always reinstall the valve stem cap (if equipped). This will prevent moisture and dirt from entering the valve stem, which could damage the valve stem.**

Inflation pressures specified on the placard are always “cold tire inflation pressure.” Cold tire inflation pressure is defined as the tire pressure after the vehicle has not been driven for at least 3 hours, or driven less than 1 mile (1 km) after a 3 hour period. The cold tire inflation pressure must not exceed the maximum inflation pressure molded into the tire sidewall.

Check tire pressures more often if subject to a wide range of outdoor temperatures, as tire pressures vary with temperature changes.

Tire pressures change by approximately 1 psi (7 kPa) per 12 °F (7 °C) of air temperature change. Keep this in mind when checking tire pressure inside a garage, especially in the winter.

Example: If garage temperature = 68 °F (20 °C) and the outside temperature = 32 °F (0 °C) then the cold tire inflation pressure should be increased by 3 psi (21 kPa), which equals 1 psi (7 kPa) for every 12 °F (7 °C) for this outside temperature condition.

Tire pressure may increase from 2 to 6 psi (13 to 40 kPa) during operation. DO NOT reduce this normal pressure build up or your tire pressure will be too low.

### **Tire Pressures for High Speed Operation**

The manufacturer advocates driving at safe speeds within posted speed limits. Where speed limits or conditions are such that the vehicle can be driven at high speeds, maintaining correct tire inflation pressure is very important. Increased tire pressure and reduced vehicle loading may be required for high-speed vehicle operation. Refer to original equipment or an authorized tire dealer for recommended safe operating speeds, loading and cold tire inflation pressures.

#### **WARNING!**

**High speed driving with your vehicle under maximum load is dangerous. The added strain on your tires could cause them to fail. You could have a serious accident. Don't drive a vehicle loaded to the maximum capacity at continuous speeds above 75 mph (120 km/h).**

### **Radial-Ply Tires**

#### **WARNING!**

**Combining radial ply tires with other types of tires on your vehicle will cause your vehicle to handle poorly. The instability could cause an accident. Always use radial ply tires in sets of four (or 6, in case of trucks with dual rear wheels). Never combine them with other types of tires.**

Cuts and punctures in radial tires are repairable only in the tread area because of sidewall flexing. Consult your authorized tire dealer for radial tire repairs.

**Compact Spare Tire — If Equipped**

The compact spare is for temporary emergency use with radial tires. It is engineered to be used on your style vehicle only. Since this tire has limited tread life, the original tire should be repaired (or replaced) and reinstalled at the first opportunity.

**WARNING!**

Temporary use spare tires are for emergency use only. With these tires, do not drive more than 50 mph (80 km/h). Temporary-use spare tires have limited tread life. When the tread is worn to the tread wear indicators, the temporary use spare tire needs to be replaced. Be sure to follow the warnings, which apply to your spare. Failure to do so could result in spare tire failure and loss of vehicle control.

Do not install a wheel cover or attempt to mount a conventional tire on the compact spare wheel, since the wheel is designed specifically for the compact spare.

Do not install more than one compact spare tire/wheel on the vehicle at any given time.

**CAUTION!**

Because of the reduced ground clearance, do not take your vehicle through an automatic car wash with the compact spare installed. Damage to the vehicle may result.

**Limited Use Spare — If Equipped**

The limited use spare tire is for temporary emergency use on your vehicle. This tire is identified by a limited use spare tire warning label located on the limited use spare tire and wheel assembly. This tire may look like the

original equipped tire on the front or rear axle of your vehicle, but it is not. Installation of this limited use spare tire affects vehicle handling. Since it is not the same tire, replace (or repair) the original tire and reinstall on the vehicle at the first opportunity.

**WARNING!**

The limited use spare tires are for emergency use only. Installation of this limited use spare tire affects vehicle handling. With this tire, do not drive more than 60 mph (100 km/h). Keep inflated to the cold tire inflation pressure listed on either your tire placard or limited use spare tire and wheel assembly. Replace (or repair) the original tire at the first opportunity and reinstall it on your vehicle. Failure to do so could result in loss of vehicle control.

**Tire Spinning**

When stuck in mud, sand, snow, or ice conditions, do not spin your vehicle's wheels faster than 30 mph (48 km/h) or for longer than 30 seconds continuously without stopping when you are stuck.

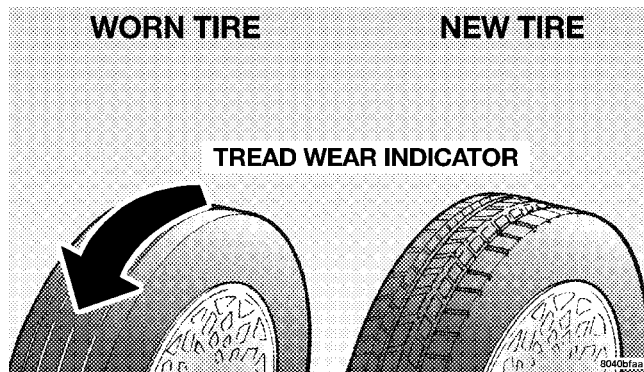
Refer to "Freeing A Stuck Vehicle" in Section 6 of this manual for additional information.

**WARNING!**

Fast spinning tires can be dangerous. Forces generated by excessive wheel speeds may cause tire damage or failure. A tire could explode and injure someone. Do not spin your vehicle's wheels faster than 30 mph (48 km/h) or for more than 30 seconds continuously when you are stuck, and don't let anyone near a spinning wheel, no matter what the speed.

### Tread Wear Indicators

Tread wear indicators are in the original equipment tires to help you in determining when your tires should be replaced.



These indicators are molded into the bottom of the tread grooves. They will appear as bands when the tread depth becomes 1/16 inch (2 mm). When the tread is worn to the tread wear indicators, the tire should be replaced.

Many states have laws requiring tire replacement at this point.

### Life of Tire

The service life of a tire is dependent upon varying factors including but not limited to:

- Driving style
- Tire pressure
- Distance driven

### WARNING!

**Tires and spare tire should be replaced after six years, regardless of the remaining tread. Failure to follow this warning can result in sudden tire failure. You could lose control and have an accident resulting in serious injury or death.**



Keep dismounted tires in a cool, dry place with as little exposure to light as possible. Protect tires from contact with oil, grease, and gasoline.

### Replacement Tires

The tires on your new vehicle provide a balance of many characteristics. They should be inspected regularly for wear and correct cold tire inflation pressure. The manufacturer strongly recommends that you use tires equivalent to the originals in size, quality and performance when replacement is needed (refer to the paragraph on “Tread Wear Indicators”). Refer to the “Tire and Loading Information” placard for the size designation of your tire. The service description and load identification will be found on the original equipment tire. Failure to use equivalent replacement tires may adversely affect the safety, handling, and ride of your vehicle. We recommend that you contact your original equipment or an authorized tire dealer with any questions you may have on tire specifications or capability.

### WARNING!

- **Do not use a tire, wheel size or rating other than that specified for your vehicle. Some combinations of unapproved tires and wheels may change suspension dimensions and performance characteristics, resulting in changes to steering, handling, and braking of your vehicle. This can cause unpredictable handling and stress to steering and suspension components. You could lose control and have an accident resulting in serious injury or death. Use only the tire and wheel sizes with load ratings approved for your vehicle.**
- **Never use a tire with a smaller load index or capacity, other than what was originally equipped on your vehicle. Using a tire with a smaller load index could result in tire overloading and failure. You could lose control and have an accident.**
- **Failure to equip your vehicle with tires having adequate speed capability can result in sudden tire failure and loss of vehicle control.**

**CAUTION!**

**Replacing original tires with tires of a different size may result in false speedometer and odometer readings.**

**Alignment And Balance**

Poor suspension alignment may result in:

- Fast tire wear.
- Uneven tire wear, such as feathering and one-sided wear.
- Vehicle pull to right or left.

Tires may also cause the vehicle to pull to the left or right. Alignment will not correct this condition. See your dealer for proper diagnosis.

Improper alignment will not cause vehicle vibration. Vibration may be a result of tire and wheel out-of-balance. Proper balancing will reduce vibration and avoid tire cupping and spotty wear.

**TIRE CHAINS**

Due to limited clearance, tire chains are not recommended.

**CAUTION!**

**Damage to the vehicle may result if tire chains are used.**

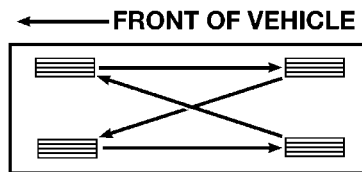
### TIRE ROTATION RECOMMENDATIONS

Tires on the front and rear axles of vehicles operate at different loads and perform different steering, driving, and braking functions. For these reasons, they wear at unequal rates, and tend to develop irregular wear patterns.

These effects can be reduced by timely rotation of tires. The benefits of rotation are especially worthwhile with aggressive tread designs such as those on all season type tires. Rotation will increase tread life, help to maintain mud, snow, and wet traction levels, and contribute to a smooth, quiet ride.

Follow the recommended tire rotation frequency for your type of driving found in the “Maintenance Schedules” Section of this manual. More frequent rotation is permissible if desired. The reasons for any rapid or unusual wear should be corrected before rotating. The suggested rotation method is the “forward-cross” shown in the diagram.

### TIRE ROTATION PATTERN



4 TIRE ROTATION

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## **TIRE PRESSURE MONITORING SYSTEM (TPMS) — IF EQUIPPED**

- The Tire Pressure Monitor System (TPMS) will warn the driver of a low tire pressure based on the vehicle recommended cold placard pressure.
- The tire pressure will vary with temperature by about 1 psi (6.9 kPa) for every 12°F (6.5°C). This means that when the outside temperature decreases, the tire pressure will decrease. Tire pressure should always be set based on cold inflation tire pressure. This is defined as the tire pressure after the vehicle has not been driven for at least 3 hours, or driven less than 1 mile (1 km) after a 3 hour period. The cold tire inflation pressure must not exceed the maximum inflation pressure molded into the tire sidewall. Refer to the “Tires – General Information” in this section for information on how to properly inflate the vehicle’s tires. The tire pressure will also increase as the vehicle is driven - this is normal and there should be no adjustment for this increased pressure.
- The TPM System will warn the driver of a low tire pressure if the tire pressure falls below the low-pressure warning limit for any reason, including low temperature effects, or natural pressure loss through the tire.
- The TPM System will continue to warn the driver of low tire pressure as long as the condition exists, and will not turn off until the tire pressure is at or above the recommended cold placard pressure. Once the low tire pressure warning (Tire Pressure Monitoring Telltale Light) illuminates, you must increase the tire pressure to the recommended cold placard pressure in order for the Tire Pressure Monitoring Telltale Light to turn off. The system will automatically update and the Tire Pressure Monitoring Telltale Light will turn off once the system receives the updated tire pressures. The vehicle may need to be driven for up to 10 minutes above 15 mph (25 km/h) in order for the TPMS to receive this information.

- For example, your vehicle may have a recommended cold (parked for more than 3 hours) placard pressure of 30 psi (207 kPa). If the ambient temperature is 68°F (20°C) and the measured tire pressure is 27 psi (186 kPa), a temperature drop to 20°F (-7°C) will decrease the tire pressure to approximately 26 psi (179 kPa). This tire pressure is sufficiently low enough to turn ON the Tire Pressure Monitoring Telltale light. Driving the vehicle may cause the tire pressure to rise to approximately 27 psi (186 kPa), but the Tire Pressure Monitoring Telltale Light will still be ON. In this situation, the Tire Pressure Monitoring Telltale Light will turn OFF only after the tires are inflated to the vehicle's recommended cold placard pressure value.

### CAUTION!

- The TPMS has been optimized for the original equipment tires and wheels. TPMS pressures and warning have been established for the tire size equipped on your vehicle. Undesirable system operation or sensor damage may result when using replacement equipment that is not of the same size, type, and/or style. Aftermarket wheels can cause sensor damage. Do not use aftermarket tire sealants or balance beads if your vehicle is equipped with a TPMS, as damage to the sensors may result.
- After inspecting or adjusting the tire pressure, always reinstall the valve stem cap. This will prevent moisture and dirt from entering the valve stem, which could damage the Tire Pressure Monitoring Sensor.

**NOTE:**

- The TPMS is not intended to replace normal tire care and maintenance, or to provide warning of a tire failure or condition.
- The TPMS should not be used as a tire pressure gauge while adjusting your tire pressure.
- Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also reduces fuel efficiency and tire tread life, and may affect the vehicle's handling and stopping ability.
- The TPMS is not a substitute for proper tire maintenance, and it is the driver's responsibility to maintain correct tire pressure using an accurate tire gauge, even if under-inflation has not reached the level to trigger illumination of the Tire Pressure Monitoring Telltale light.

- Seasonal temperature changes will affect tire pressure, and the TPM system will monitor the actual tire pressure in the tire.

**Base System – If Equipped**

This is the Tire Pressure Monitoring System warning indicator located in the instrument cluster.

The Tire Pressure Monitor System (TPMS) uses wireless technology with wheel rim mounted electronic sensors to monitor tire pressure levels. Sensors, mounted to each wheel as part of the valve stem, transmit tire pressure readings to the Receiver Module.

**NOTE:** It is particularly important for you to check the tire pressure in all of the tires on your vehicle regularly and to maintain the proper pressure.

The TPMS consists of the following components:

- Receiver Module

- 4 Tire Pressure Monitoring Sensors
- Tire Pressure Monitoring Telltale Light

The Tire Pressure Monitoring Telltale Lamp will illuminate in the instrument cluster, and an audible chime will be activated when one or more of the four active road tire pressures are low. Should this occur, you should stop as soon as possible, check the inflation pressure of each tire on your vehicle, and inflate each tire to the vehicle's recommended cold placard pressure value. The system will automatically update and the Tire Pressure Monitoring Lamp will extinguish once the updated tire pressures have been received. The vehicle may need to be driven for up to 10 minutes above 15 mph (25 kph) to receive this information.

The Tire Pressure Monitoring Telltale Lamp will flash on and off for 75 seconds, and remain on solid when a system fault is detected. The system fault will also sound a chime. If the ignition key is cycled, this sequence will

repeat, providing the system fault still exists. The Tire Pressure Monitoring Telltale Lamp will turn off when the fault condition no longer exists. A system fault can occur by any of the following scenarios:

1. Jamming due to electronic devices or driving next to facilities emitting the same Radio Frequencies as the TPM sensors.
2. Installing some form of aftermarket window tinting that affects radio wave signals.
3. Lots of snow or ice around the wheels or wheel housings.
4. Using tire chains on the vehicle.
5. Using wheels/tires not equipped with TPM sensors.

**NOTE:** Your vehicle is equipped with a compact spare wheel and tire assembly.

1. The compact spare tire does not have a tire pressure monitoring sensor. Therefore, the TPMS will not monitor the tire pressure in the compact spare tire.
2. If you install the compact spare tire in place of a road tire that has a pressure below the low-pressure warning limit, upon the next ignition key cycle, a chime will sound and the TPM Telltale Light will still turn ON due to the low tire.
3. However, after driving the vehicle for up to 10 minutes above 15 mph (25 km/h), the TPM Telltale Light will flash on and off for 75 seconds and then remain on solid.
4. For each subsequent ignition key cycle, a chime will sound and the TPM Telltale Light will flash on and off for 75 seconds and then remain on solid.
5. Once you repair or replace the original road tire, and reinstall it on the vehicle in place of the compact spare tire, the TPMS will update automatically and the TPM

Telltale Light will turn OFF, as long as no tire pressure is below the low-pressure warning limit in any of the four active road tires. The vehicle may need to be driven for up to 10 minutes above 15 mph (25 km/h) in order for the TPMS to receive this information.

### **Premium System – If Equipped**

The Tire Pressure Monitor System (TPMS) uses wireless technology with wheel rim mounted electronic sensors to monitor tire pressure levels. Sensors, mounted to each wheel as part of the valve stem, transmit tire pressure readings to the Receiver Module.

**NOTE:** It is particularly important, for you to check the tire pressure in all of your tires regularly and to maintain the proper pressure.

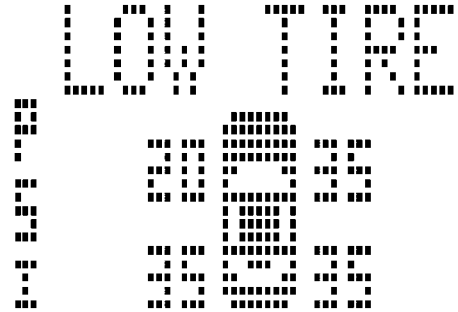


The TPMS consists of the following components:

- Receiver Module
- 4 Tire Pressure Monitoring Sensors
- 3 Trigger Modules (mounted in three of the four wheel wells)
- Various Tire Pressure Monitoring System Messages, which display in the Electronic Vehicle Information Center (EVIC)
- Yellow Tire Pressure Monitoring Telltale Light

### **Tire Pressure Monitoring Low Pressure Warnings**

The Tire Pressure Monitoring Telltale Lamp will illuminate in the instrument cluster, and an audible chime will be activated when one or more of the four active road tire pressures are low. The audible chime will sound once every ignition cycle for each condition that it detects. In addition, the Electronic Vehicle Information Center (EVIC) will display a graphic of the pressure value(s) with the low tire(s) flashing.



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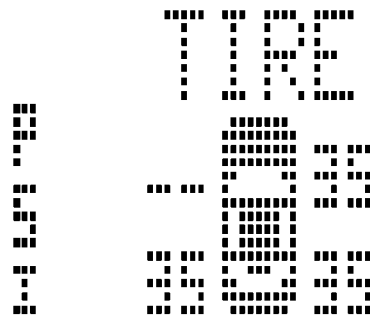
### **Low Tire Pressure Display**

Should a low tire condition occur on any of the four active road tire(s), you should stop as soon as possible, and inflate the low tire(s) that is flashing on the graphic display to the vehicle's recommended cold placard pressure value. The system will automatically update, the

graphic display of the pressure value(s) will stop flashing, and the Tire Pressure Monitoring Lamp will extinguish once the updated tire pressure(s) have been received. The vehicle may need to be driven for up to 10 minutes above 15 mph (25 kph) to receive this information.

### Check TPM System Message

The Tire Pressure Monitoring Telltale Lamp will flash on and off for 75 seconds, and remain on solid when a system fault is detected. The system fault will also sound a chime. The EVIC will display a "CHECK TPM SYSTEM" message for 3 seconds. This text message is then followed by a graphic display, with "- -" in place of the pressure value(s) indicating which Tire Pressure Monitoring Sensor(s) is not being received.



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### Check TPM System Display

If the ignition key is cycled, this sequence will repeat, providing the system fault still exists. If the system fault no longer exists, the Tire Pressure Monitoring Telltale Light will no longer flash, the "CHECK TPM SYSTEM"

text message will not be present, and a pressure value will be displayed instead of dashes. A system fault can occur by any of the following scenarios:

1. Jamming due to electronic devices or driving next to facilities emitting the same Radio Frequencies as the TPM sensors.
2. Installing some form of aftermarket window tinting that affects radio wave signals.
3. Lots of snow or ice around the wheels or wheel housings.
4. Using tire chains on the vehicle.
5. Using wheels/tires not equipped with TPM sensors.

**NOTE:** Your vehicle is equipped with a compact spare wheel and tire assembly.

1. The compact spare tire does not have a tire pressure monitoring sensor. Therefore, the TPMS will not monitor the tire pressure in the compact spare tire.

2. If you install the compact spare tire in place of a road tire that has a pressure below the low-pressure warning limit, upon the next ignition key cycle, a chime will sound and the TPM Telltale Light will still turn ON due to the low tire.

3. However, after driving the vehicle for up to 10 minutes above 15 mph (25 km/h), the TPM Telltale Light will flash on and off for 75 seconds and then remain on solid.

4. For each subsequent ignition key cycle, a chime will sound and the TPM Telltale Light will flash on and off for 75 seconds and then remain on solid.

5. Once you repair or replace the original road tire, and reinstall it on the vehicle in place of the compact spare tire, the TPMS will update automatically and the TPM Telltale Light will turn OFF, as long as no tire pressure is below the low-pressure warning limit in any of the four

active road tires. The vehicle may need to be driven for up to 10 minutes above 15 mph (25 km/h) in order for the TPMS to receive this information.

### General Information

This device complies with part 15 of the FCC rules and RSS 210 of Industry Canada. Operation is subject to the following conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

The tire pressure sensors are covered under one of the following licenses:

United States . . . . . KR5S120123  
Canada . . . . . 2671-S120123

### SNOW TIRES

Some areas of the country require the use of snow tires during winter. Standard tires are of the all season type and satisfy this requirement as indicated by the M+S designation on the tire sidewall.

If you need snow tires, select tires equivalent in size and type to the original equipment tires. Use snow tires only in sets of 4, failure to do so may adversely affect the safety and handling of your vehicle.

Snow tires generally have lower speed ratings than what was originally equipped with your vehicle and should not be operated at sustained speeds over 75 mph (120 km/h).

## FUEL REQUIREMENTS

### GASOLINE ENGINES



Your vehicle is designed to meet all emission regulations and provide excellent fuel economy when using high quality regular unleaded gasoline with an octane rating of 87. The use of premium gasoline is not recommended. The use of premium gasoline will provide no benefit over high quality regular gasolines, and in some circumstances, may result in poorer performance.

Light spark knock at low engine speeds is not harmful to your engine. However, continued heavy spark knock at high speeds can cause damage and immediate service is required.

Poor quality gasoline can cause problems such as hard starting, stalling and hesitations. If you experience these

symptoms, try another brand of gasoline (with the appropriate octane rating for your engine) before considering service for the vehicle.

### Reformulated Gasoline

Many areas of the country require the use of cleaner burning gasoline referred to as "Reformulated Gasoline".

Reformulated gasolines contain oxygenates, and are specifically blended to reduce vehicle emissions and improve air quality.

The manufacturer supports the use of reformulated gasolines. Properly blended reformulated gasolines will provide excellent performance and durability of engine and fuel system components.

**Gasoline/Oxygenate Blends**

Some fuel suppliers blend unleaded gasoline with oxygenates such as 10% ethanol, MTBE, and ETBE. Oxygenates are required in some areas of the country during the winter months to reduce carbon monoxide emissions. Fuels blended with these oxygenates may be used in your vehicle.

**CAUTION!**

**DO NOT use gasolines containing Methanol or E85 Ethanol. Use of these blends may result in starting and driveability problems and may damage critical fuel system components.**

Problems that result from using methanol/gasoline blends are not the responsibility of the manufacturer. While MTBE is an oxygenate made from Methanol, it does not have the negative effects of Methanol.

**MMT In Gasoline**

MMT is a manganese containing metallic additive that is blended into some gasoline to increase the octane number. Gasolines blended with MMT offer no performance advantage beyond gasolines of the same octane number without MMT. Gasolines blended with MMT have shown to reduce spark plug life and reduce emission system performance in some vehicles. The manufacturer recommends using gasolines without MMT. Since the MMT content of gasoline may not be indicated on the pump, you should ask your gasoline retailer whether or not his/her gasoline contains MMT.

It is even more important to look for gasolines without MMT in Canada, because MMT can be used at levels higher than those allowed in the United States.

MMT is prohibited in Federal and California reformulated gasolines.

### Materials Added to Fuel

All gasoline sold in the United States is required to contain effective detergent additives. Use of additional detergents or other additives is not needed under normal conditions and would result in additional cost. Therefore you should not have to add anything to the fuel.

### Fuel System Cautions

<b>CAUTION!</b>
<b>Follow these guidelines to maintain your vehicle's performance:</b>

- The use of leaded gas is prohibited by Federal law. Using leaded gasoline can impair engine performance, damage the emission control system.

- An out-of-tune engine, or certain fuel or ignition malfunctions, can cause the catalytic converter to overheat. If you notice a pungent burning odor or some light smoke, your engine may be out of tune or malfunctioning and may require immediate service. Contact your dealer for service assistance.
- The use of fuel additives which are now being sold as octane enhancers is not recommended. Most of these products contain high concentrations of methanol. Fuel system damage or vehicle performance problems resulting from the use of such fuels or additives is not the responsibility of the manufacturer.

**NOTE:** Intentional tampering with emissions control systems can result in civil penalties being assessed against you.

## Carbon Monoxide Warnings

### WARNING!

**Carbon monoxide (CO) in exhaust gases is deadly. Follow the precautions below to prevent carbon monoxide poisoning:**

- Do not inhale exhaust gases. They contain carbon monoxide, a colorless and odorless gas which can kill. Never run the engine in a closed area, such as a garage, and never sit in a parked vehicle with the engine running for an extended period. If the vehicle is stopped in an open area with the engine running for more than a short period, adjust the ventilation system to force fresh, outside air into the vehicle.
- Guard against carbon monoxide with proper maintenance. Have the exhaust system inspected every time the vehicle is raised. Have any abnormal conditions repaired promptly. Until repaired, drive with all side windows fully open.
- Keep the liftgate closed when driving your vehicle to prevent carbon monoxide and other poisonous exhaust gases from entering the vehicle.

## ADDING FUEL

### Fuel Filler Cap (Gas Cap)

The gas cap is behind the fuel filler door, on the left side of the vehicle. If the gas cap is lost or damaged, be sure the replacement cap is for use with this vehicle.



**CAUTION!**

- A poorly fitting gas cap may cause the Malfunction Indicator Light to turn on.
- To avoid fuel spillage and overfilling, do not “top off” the fuel tank after filling.

**NOTE:** When the fuel nozzle “clicks” or shuts off, the fuel tank is full.

**WARNING!**

- Never have any smoking materials lit in or near the vehicle when the gas cap is removed or the tank filled.
- Never add fuel when the engine is running. This is in violation of most state and federal fire regulations and will cause the malfunction indicator light to turn on.

**NOTE:** Tighten the gas cap about 1/4 turn until you hear one click. This is an indication that cap is properly tightened.

If the gas cap is not tighten properly, the Malfunction Indicator Light will come on. Be sure the gas cap is tightened every time the vehicle is refueled.

**WARNING!**

**A fire may result if gasoline is pumped into a portable container that is inside of a vehicle. You could be burned. Always place gas containers on the ground while filling.**

**Loose Fuel Filler Cap Message**

If the vehicle diagnostic system determines that the fuel filler cap is loose or improperly installed, a “GASCAP” message will be displayed in the Odometer/Trip Odometer in the instrument cluster. Refer to “Instrument Cluster Description” in Section 4 of this manual. Tighten the fuel filler cap properly and press the odometer/trip odometer reset button to turn the message off. If the problem continues, the message will appear the next time

the vehicle is started. Refer to “Onboard Diagnostic System — OBDII” in Section 7 of this manual for more information.

**CAUTION!**

**Damage to the fuel system or emission control system could result from using an improper fuel tank filler cap (gas cap). A poorly fitting cap could let impurities into the fuel system.**

**VEHICLE LOADING****Vehicle Loading Capacities**

Front Seat Occupants . . . . .	2
Rear Seat Occupants . . . . .	3
Luggage . . . . .	175 lbs. (80 kg)
Vehicle Rated Capacity . . . . .	925 lbs. (420 kg)

**Gross Vehicle Weight Rating (GVWR)**

The GVWR is the total allowable weight of your vehicle. This includes the weight of your vehicle, the driver, passengers, cargo and trailer tongue weight. The total load must be limited so that you do not exceed the GVWR.

**TRAILER TOWING**

In this section you will find safety tips and information on limits to the type of towing you can reasonably do with your vehicle. Before towing a trailer carefully review this information to tow your load as efficiently and safely as possible.

To maintain warranty coverage, follow the requirements and recommendations in this manual concerning vehicles used for trailer towing.

**Common Towing Definitions**

The following trailer towing related definitions will assist you in understanding the following information:

**Gross Vehicle Weight Rating (GVWR)**

The GVWR is the total allowable weight of your vehicle. This includes driver, passengers, cargo and tongue weight. The total load must be limited so that you do not exceed the GVWR.

**Gross Trailer Weight (GTW)**

The gross trailer weight (GTW) is the weight of the trailer plus the weight of all cargo, consumables and equipment (permanent or temporary) loaded in or on the trailer in its "loaded and ready for operation" condition. The recommended way to measure GTW is to put your fully loaded trailer on a vehicle scale. The entire weight of the trailer must be supported by the scale.

**Gross Combination Weight Rating (GCWR)**

The gross combination weight rating (GCWR) is the total permissible weight of your vehicle and trailer when weighed in combination. (Note that GCWR ratings include a 68 kg (150 lbs) allowance for the presence of a driver).

**Gross Axle Weight Rating (GAWR)**

The GAWR is the maximum capacity of the front and rear axles. Distribute the load over the front and rear axles evenly. Make sure that you do not exceed either front or rear GAWR.

**WARNING!**

**It is important that you do not exceed the maximum front or rear GAWR. A dangerous driving condition can result if either rating is exceeded. You could lose control of the vehicle and have an accident.**

**Tongue Weight (TW)**

The downward force exerted on the hitch ball by the trailer. In most cases it should not be less than 10% or more than 15% of the trailer load. You must consider this as part of the load on your vehicle.

**Frontal Area**

The maximum height and maximum width of the front of a trailer.

**Trailer Sway Control**

The trailer sway control is a telescoping link that can be installed between the hitch receiver and the trailer tongue that typically provides adjustable friction associated with the telescoping motion to dampen any unwanted trailer swaying motions while traveling.

**Weight-Carrying Hitch**

A weight-carrying hitch supports the trailer tongue weight, just as if it were luggage located at a hitch ball or some other connecting point of the vehicle. These kind of

hitches are the most popular on the market today and they're commonly used to tow small- and medium-sized trailers.

### **Weight-Distributing Hitch**

A weight-distributing system works by applying leverage through spring (load) bars. They are typically used for heavier loads, to distribute trailer tongue weight to the tow vehicle's front axle and the trailer axle(s). When used in accordance with the manufacturers' directions, it provides for a more level ride, offering more consistent steering and brake control thereby enhancing towing safety. The addition of a friction / hydraulic sway control also dampens sway caused by traffic and crosswinds and contributes positively to tow vehicle and trailer stability. Trailer sway control and a weight distributing (load

equalizing) hitch are recommended for heavier Tongue Weights (TW) and may be required depending on Vehicle and Trailer configuration / loading to comply with gross axle weight rating (GAWR) requirements.

#### **WARNING!**

**An improperly adjusted Weight Distributing Hitch system may reduce handling, stability, braking performance, and could result in an accident.**

**Weight Distributing Systems may not be compatible with Surge Brake Couplers. Consult with your hitch and trailer manufacturer or a reputable Recreational Vehicle dealer for additional information.**

**Trailer Hitch Classification**

Your vehicle may be factory equipped for safe towing of trailers weighing over 2,000 lbs (907 kg) with the optional Trailer Tow Prep Package. See your dealer for package content.

The following chart provides the industry standard for the maximum trailer weight a given trailer hitch class can tow and should be used to assist you in selecting the correct trailer hitch for your intended towing condition. Refer to the Trailer Towing Weights (Maximum Trailer Weight Ratings) chart for the Max. GTW towable for your given drivetrain.

Trailer Hitch Classification	
Class	Max. GTW (Gross Trailer Wt.)
Class I - Light Duty	2,000 lbs (907 kg)
Class II - Medium Duty	3,500 lbs (1 587 kg)
Class III - Heavy Duty	5,000 lbs (2 268 kg)
Class IV - Extra Heavy Duty	10,000 lbs (4 540 kg)

All trailer hitches should be professionally installed on your vehicle.

### Trailer Towing Weights (Maximum Trailer Weight Ratings)

The following chart provides the maximum trailer weight ratings towable for your given drivetrain.

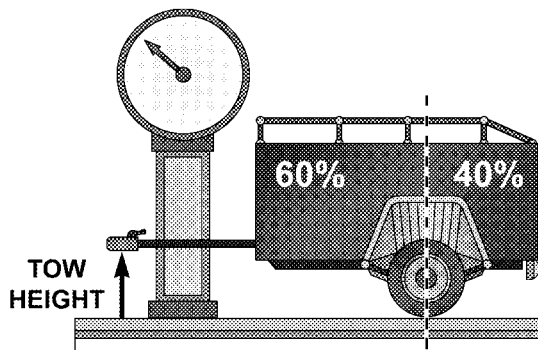
Engine/Transmission	Frontal Area	Max. GTW (Gross Trailer Wt.)	Max. Tongue Wt. (See Note 1)
2.4L Auto/Man	22 Sq. Ft. (2.04 Sq. m)	1000 lbs (453 kg)	150 lbs (68 kg)
2.4L Auto/Man with Trailer Tow Prep Package (AHC)	32 Sq. Ft. (3.0 Sq. m)	2000 lbs (907 kg)	225 lbs (102 kg)
Refer to local laws for maximum trailer towing speeds.			

Note 1 – The trailer tongue weight must be considered as part of the combined weight of occupants and cargo, and should never exceed the weight referenced on the Tire and Loading Information placard. Refer to the Tire–Safety Information Section in this manual.

### Trailer and Tongue Weight

Always load a trailer with 60% to 65% of the weight in the front of the trailer. This places 10% to 15% of the Gross Trailer Weight (GTW) on the tow hitch of your vehicle. Loads balanced over the wheels or heavier in the rear can cause the trailer to sway **severely** side to side which will cause loss of control of the vehicle and trailer. Failure to load trailers heavier in front is the cause of many trailer accidents.

Never exceed the maximum tongue weight stamped on your bumper or trailer hitch.



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Consider the following items when computing the weight on the rear axle of the vehicle:

- The tongue weight of the trailer.
- The weight of any other type of cargo or equipment put in or on your vehicle.
- The weight of the driver and all passengers.

**NOTE:** Remember that everything put into or on the trailer adds to the load on your vehicle. Also, additional factory-installed options, or dealer-installed options, must be considered as part of the total load on your vehicle. Refer to the Tire and Loading Information placard in the Tire Safety Information Section of this manual for the maximum combined weight of occupants and cargo for your vehicle.

### Towing Requirements

To promote proper break-in of your new vehicle drivetrain components the following guidelines are recommended:

#### CAUTION!

- **Avoid towing a trailer for the first 500 miles (805 km) of vehicle operation. Doing so may damage your vehicle.**
- **During the first 500 miles (805 km) of trailer towing, limit your speed to 50 mph (80 km/h).**

Perform the maintenance listed in the “Maintenance Schedule.” Refer to Section 8 of this manual. When towing a trailer, never exceed the GAWR, or GCWR, ratings.

**WARNING!**

**Improper towing can lead to an injury accident. Follow these guidelines to make your trailer towing as safe as possible:**

**Make certain that the load is secured in the trailer and will not shift during travel. When trailering cargo that is not fully secured, dynamic load shifts can occur that may be difficult for the driver to control. You could lose control of your vehicle and have an accident.**

- When hauling cargo or towing a trailer, do not overload your vehicle or trailer. Overloading can cause a loss of control, poor performance or damage to brakes, axle, engine, transmission, steering, suspension, chassis structure or tires.
- Safety chains must always be used between your vehicle and trailer. Always connect the chains to the

frame or hook retainers of the vehicle hitch. Cross the chains under the trailer tongue and allow enough slack for turning corners.

- Vehicles with trailers should not be parked on a grade. When parking, apply the parking brake on the tow vehicle. Put the tow vehicle automatic transmission in P for Park. Always, block or "chock" the trailer wheels.
- GCWR must not be exceeded.
- **Total weight must be distributed between the tow vehicle and the trailer such that the following four ratings are not exceeded:**
  1. GVWR
  2. GTW
  3. GAWR
  4. Tongue weight rating for the trailer hitch utilized (This requirement may limit the ability to always achieve the 10% to 15% range of tongue weight as a percentage of total trailer weight).

### Towing Requirements — Tires

- Do not attempt to tow a trailer while using a compact spare tire.
- Proper tire inflation pressures are essential to the safe and satisfactory operation of your vehicle. Refer to the Tires-General Information section of this manual on Tire Pressures for proper tire inflation procedures.
- Also, check the trailer tires for proper tire inflation pressures before trailer usage.
- Check for signs of tire wear or visible tire damage before towing a trailer. Refer to the Tires-General Information section of this manual on Tread Wear Indicators for the proper inspection procedure.
- When replacing tires refer to the Tires-General Information section of this manual on Replacement Tires for

proper tire replacement procedures. Replacing tires with a higher load carrying capacity will not increase the vehicle's GVWR and GAWR limits.

### Towing Requirements — Trailer Brakes

- Do **not** interconnect the hydraulic brake system or vacuum system of your vehicle with that of the trailer. This could cause inadequate braking and possible personal injury.
- An electronically actuated trailer brake controller is required when towing a trailer with electronically actuated brakes. When towing a trailer equipped with a hydraulic surge actuated brake system, an electronic brake controller is not required.
- Trailer brakes are recommended for trailers over 1,000 lbs (454 kg) and required for trailers in excess of 2,000 lbs (907 kg).

**CAUTION!**

If the trailer weighs more than 1,000 lbs (454 kg) loaded, it should have its own brakes and they should be of adequate capacity. Failure to do this could lead to accelerated brake lining wear, higher brake pedal effort, and longer stopping distances.

**WARNING!**

Do not connect trailer brakes to your vehicle's hydraulic brake lines. It can overload your brake system and cause it to fail. You might not have brakes when you need them and could have an accident.

Towing any trailer will increase your stopping distance. When towing you should allow for additional space between your vehicle and the vehicle in front of you. Failure to do so could result in an accident.

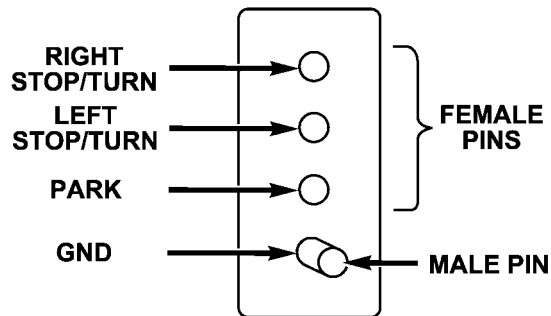
**Towing Requirements — Trailer Lights & Wiring**

Whenever you pull a trailer, regardless of the trailer size, stop lights and turn signals on the trailer are required for motoring safety.

The Trailer Tow Package may include a 4 and 7 pin wiring harness. Use a factory approved trailer harness and connector.

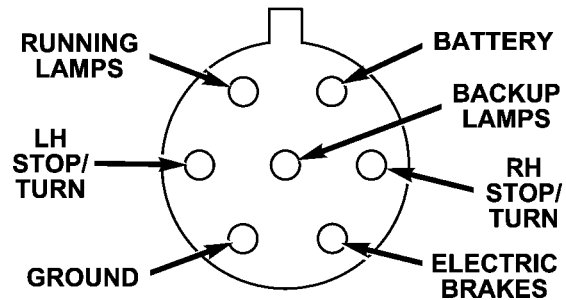
**NOTE:** Do not cut or splice wiring into the vehicles wiring harness.

The electrical connections are all complete to the vehicle but you must mate the harness to a trailer connector. Refer to the following illustrations.



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4 - Pin Connector



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7- Pin Connector

**Towing Tips**

Before setting out on a trip, practice turning, stopping and backing the trailer in an area away from heavy traffic.

**Towing Tips — Automatic Transmission**

The automatic transmission fluid and filter should be changed if you REGULARLY tow a trailer for more than 45 minutes of continuous operation. Refer to the “Maintenance Schedule” in Section 8 for transmission fluid change intervals.

**NOTE:** Check the automatic transmission fluid level before towing.

**Towing Tips — Electronic Speed Control (If Equipped)**

- Don’t use in hilly terrain or with heavy loads.
- When using the speed control, if you experience speed drops greater than 10 mph (16 km/h), disengage until you can get back to cruising speed.

- Use speed control in flat terrain and with light loads to maximize fuel efficiency.

**Towing Tips — Cooling System**

To reduce potential for engine and transmission overheating, take the following actions:

- **City Driving**

When stopped for short periods of time, put transmission in neutral but do not increase engine idle speed.

- **Highway Driving**

Reduce speed.

- **Air Conditioning**

Turn off temporarily.

- refer to Cooling System Operating information in the Maintenance section of this manual for more information.

## RECREATIONAL TOWING (BEHIND MOTORHOME, ETC.)

**Towing This Vehicle Behind Another Vehicle (Flat  
towing with all four wheels on the ground)**

<b>CAUTION!</b>
<b>DO NOT flat tow this vehicle. Damage to the drivetrain will result.</b>

**NOTE:** If the vehicle requires towing make sure all four wheels are off the ground.





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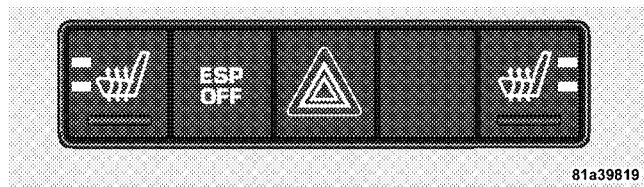
# WHAT TO DO IN EMERGENCIES

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## HAZARD WARNING FLASHER



**Hazard Warning Flasher**



The flasher switch is located on the instrument panel, below the radio. Depress the switch and both cluster indicators and all front and rear directional signals will flash. Depress the switch again to turn Hazard Warning Flashers off.

Do not use this emergency warning system when the vehicle is in motion. Use it when your vehicle is disabled and is creating a safety hazard for other motorists.

If it is necessary to leave the vehicle to go for service, the flasher system will continue to operate with the ignition key removed and the vehicle locked.

**NOTE:** With extended use, the flasher may wear down your battery.

## IF YOUR ENGINE OVERHEATS

In any of the following situations, you can reduce the potential for overheating by taking the appropriate action.

- On the highways — Slow down.
- In city traffic — While stopped, put transaxle in neutral, but do not increase engine idle speed.

If the pointer rises to the **H** (red) mark, the instrument cluster will sound a chime. Pull over and stop the vehicle with the engine at idle, when safe. Turn off the air conditioning and wait until the pointer drops back into

the normal range. If the pointer remains on the H (red) mark for more than a minute, turn the engine off immediately and call for service.

**NOTE:** There are steps that you can take to slow down an impending overheat condition. If your air conditioner is on, turn it off. The air conditioning system adds heat to the engine cooling system and turning off the A/C removes this heat. You can also turn the Temperature control to maximum heat, the Mode control to floor, and the fan control to High. This allows the heater core to act as a supplement to the radiator and aids in removing heat from the engine cooling system.

### CAUTION!

**Driving with a hot cooling system could damage your vehicle. If temperature gauge reads “H”, pull over and stop the vehicle with the engine at idle, when safe. Turn the air conditioner off and wait until the pointer drops back into the normal range. After appropriate action has been taken, if the pointer remains on the “H”, turn the engine off immediately, and call for service.**

**WARNING!**

A hot engine cooling system is dangerous. You or others could be badly burned by steam or boiling coolant. You may want to call a service center if your vehicle overheats. If you decide to look under the hood yourself, refer to Section 7, Maintenance, of this manual. Follow the warnings under the Cooling System Pressure Cap paragraph.

**AUTOMATIC TRANSAXLE OVERHEATING**

During sustained high speed driving or trailer towing up long grades on hot days, the automatic transaxle oil may become too hot.



If this happens, the transmission overheat indicator light will come on, and the vehicle will slow slightly until the automatic transaxle cools down enough to allow a return to the

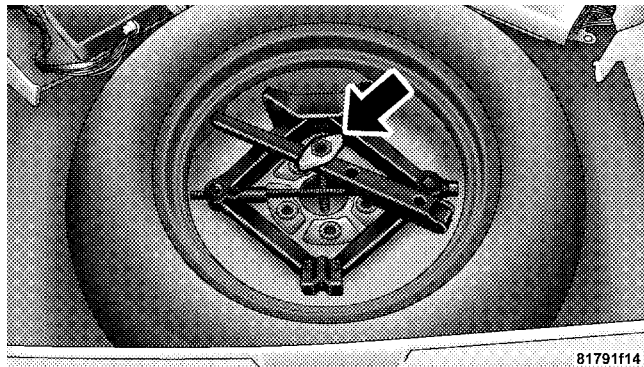
requested speed. If the high speed is maintained, the overheating will reoccur, as before, in a cyclic fashion.

**JACKING AND TIRE CHANGING****WARNING!**

- Being under a jacked-up vehicle is dangerous. The vehicle could slip off the jack and fall on you. You could be crushed. Never put any part of your body under a vehicle that is on a jack. Never start or run the engine while the vehicle is on a jack. If you need to get under a raised vehicle, take it to a service center where it can be raised on a lift.
- The jack is designed to use as a tool for changing tires only. The jack should not be used to lift the vehicle for service purposes. The vehicle should be jacked on a firm level surface only. Avoid ice or slippery areas.

### Jack Location

The jack and jack-handle are stowed under the load floor in the cargo area.



Spare Tire and Jack Stowage

### Spare Tire Stowage

The spare tire is stowed under the rear load floor in the cargo area.

### Spare Tire Removal

Lift up the load floor cover and remove the hold down.

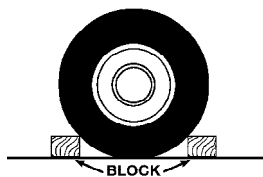
### Preparations For Jacking

Park the vehicle on a firm level surface, avoid ice or slippery areas, **set the parking brake** and place the gear selector in PARK (automatic transaxle) or REVERSE (manual transaxle). Turn OFF the ignition.

### WARNING!

Do not attempt to change a tire on the side of the vehicle close to moving traffic. Pull far enough off the road to avoid the danger of being hit when operating the jack or changing the wheel.

- Turn on the Hazard Warning Flasher.

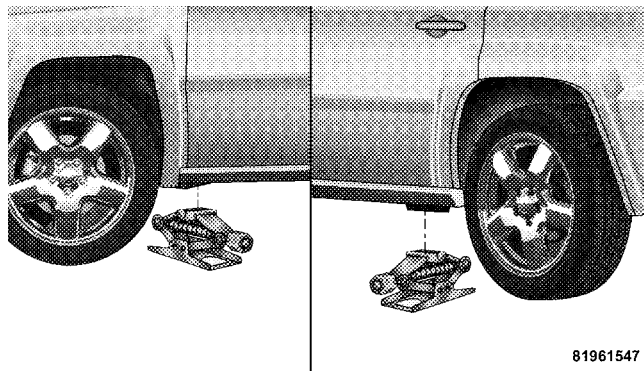


- Block both the front and rear of the wheel diagonally opposite the jacking position. For example, if changing the right front tire, block the left rear wheel.

- Passengers should not remain in the vehicle while the vehicle is being jacked.

### Jacking Instructions

1. Remove the scissors jack and lug wrench from the spare wheel as an assembly. Turn the jack screw to the left to loosen the lug wrench, and remove the wrench from the jack assembly.
2. Loosen, but do not remove, the wheel nuts by turning them to the left one turn while the wheel is still on the ground.



Jacking Locations

### CAUTION!

**Do not attempt to raise the vehicle by jacking on locations other than those indicated in step 3.**

3. There are two front jacking locations and two rear jacking locations on each side of the body. The front locations are outlined by two triangular cutouts, the rear ones by two rectangular cutouts. For vehicles equipped with plastic trim, the plastic has been cut away to expose the jacking locations in the body.

Do not raise the vehicle until you are sure the jack is securely engaged.

4. Turn the jack screw to the left until the jack can be placed under the jacking location. Once the jack is positioned, turn the jack screw to the right until the jack head is properly engaged with the lift area closest to the wheel to be changed. Do not raise the vehicle until you are sure the jack is securely engaged.

### WARNING!

**Raising the vehicle higher than necessary can make the vehicle less stable. It could slip off the jack and hurt someone near it. Raise the vehicle only enough to remove the tire.**

5. Raise the vehicle by turning the jack screw to the right, using the swivel wrench. Raise the vehicle only until the tire just clears the surface and enough clearance is obtained to install the spare tire. Minimum tire lift provides maximum stability.

6. Remove the wheel nuts and pull the wheel (and bolt-on center cap if equipped) off the hub. Install the spare wheel and wheel nuts with the cone shaped end of the nuts toward the wheel. Lightly tighten the nuts. To avoid the risk of forcing the vehicle off the jack, do not tighten the nuts fully until the vehicle has been lowered.

7. Lower the vehicle by turning the jack screw to the left.
8. Finish tightening the nuts. Push down on the wrench while tightening the wheel nuts. Alternate nuts until each nut has been tightened twice. Correct wheel nut torque is 100 ft. lbs (135 N·m). If you doubt that you have tightened the nuts correctly, have them checked with a torque wrench by your dealer or at a service station.
9. Remove the wheel blocks and lower the jack until it is free. Reassemble the lug wrench to the jack assembly and stow it in the spare tire area. Secure the assembly using the means provided.

**WARNING!**

**A loose tire or jack thrown forward in a collision or hard stop could endanger the occupants of the vehicle. Always stow the jack parts and the spare tire in the places provided.**

10. Place the deflated (flat) tire in the cargo area, **have the tire repaired or replaced as soon as possible.**

**WARNING!**

**A loose tire thrown forward in a collision or hard stop could injure the occupants in the vehicle. Have the deflated (flat) tire repaired or replaced immediately.**

11. Check the tire pressure as soon as possible. Correct pressure as required.



## **JUMP-STARTING PROCEDURES DUE TO A LOW BATTERY**

### **WARNING!**

Take care to avoid the radiator cooling fan whenever the hood is raised. It can start anytime the ignition switch is on. You can be hurt by the fan.

### **WARNING!**

Do not attempt to push or tow your vehicle to get it started. Vehicles equipped with an automatic trans-axle cannot be started this way and may be damaged. Unburned fuel could enter the catalytic converter and once the engine has started, ignite and damage the converter and vehicle. If the vehicle has a discharged battery, booster cables may be used to obtain a start from another vehicle. This type of start can be dangerous if done improperly, so follow this procedure carefully.

**WARNING!**

**Wear eye protection and remove any metal jewelry such as watch bands or bracelets that might make an inadvertent electrical contact. You could be seriously injured.**

**NOTE:** Disconnecting the battery with the ignition in the On position will cause vehicles with an automatic transaxle (CVT2) to go into “default mode” and turn on the malfunction indicator light. See your authorized dealer to correct this condition.

1. Wear eye protection and remove any metal jewelry such as watch bands or bracelets that might make an inadvertent electrical contact.

2. When boosting from a battery in another vehicle, park that vehicle within booster cable reach but without letting the vehicles touch. Set parking brake, place automatic transaxle in PARK (manual transaxle in NEUTRAL) and turn ignition to OFF for both vehicles.

3. Turn off the heater, radio and all unnecessary electrical loads.

4. Remove the air intake duct covering the battery, using the two finger screws on the cover.

5. Connect one end of a jumper cable to the positive terminal of the booster battery. Connect the other end of the jumper cable to the positive terminal of the discharged battery.

**WARNING!**

**Battery fluid is a corrosive acid solution; do not allow battery fluid to contact eyes, skin or clothing. Don't lean over battery when attaching clamps or allow the clamps to touch each other. If acid splashes in eyes or on skin, flush the contaminated area immediately with large quantities of water.**

**A battery generates hydrogen gas which is flammable and explosive. Keep flame or spark away from the vent holes. Do not use a booster battery or any other booster source with an output that exceeds 12 volts.**

6. Connect the other cable, first to the negative terminal of the booster battery and then to the negative terminal of the discharged battery. Make sure you have a good contact.

7. If the vehicle is equipped with Sentry Key Immobilizer, turn the ignition switch to the ON position for 3 seconds before moving the ignition switch to the START position.

8. Start the engine in the vehicle that has the booster battery, let the engine idle a few minutes, then start the engine in the vehicle with the discharged battery.

9. When removing the jumper cables, reverse the sequence exactly. Be careful of the moving belts and fan.

**FREEING A STUCK VEHICLE**

**NOTE:** If your vehicle is equipped with Traction Control or ESP, turn the system OFF before attempting to "rock" the vehicle.

If your vehicle becomes stuck in mud, sand or snow, it can often be moved by a rocking motion. Turn your steering wheel right and left to clear the area around the front wheels. Then shift back and forth between Reverse

and First gear. Usually the least accelerator pedal pressure to maintain the rocking motion without spinning the wheels is most effective.

### **WARNING!**

Fast spinning tires can be dangerous. Forces generated by excessive wheel speeds may cause axle, tire damage or failure. A tire could explode and injure someone. Do not spin your vehicle's wheels faster than 30 mph (48 km/h) or for longer than 30 seconds continuously without stopping when you are stuck. And don't let anyone near a spinning wheel, no matter what the speed.

### **CAUTION!**

Racing the engine or spinning the wheels too fast may lead to transaxle overheating and failure. It can also damage the tires. Do not spin the wheels above 30 mph (48 km/h). Do not spin the wheels continuously for more than 30 seconds.

## **TOWING A DISABLED VEHICLE**

### **With Ignition Key**

#### **Automatic And Manual Transaxle**

Front-wheel-drive vehicles must have the front wheels elevated; Four-wheel-drive vehicles must be hauled on a flatbed truck.

## All Transaxles

### CAUTION!

**If the vehicle being towed requires steering, the ignition switch must be in the ACCESSORY position, not in the LOCK position.**

**Do not attempt to use sling type equipment when towing. When securing vehicle to flat bed truck, do not attach to front or rear suspension components. Damage to your vehicle may result from improper towing.**

If it is necessary to use the accessories while being towed (wipers, defrosters, etc.), the key must be in the ON position, not the ACCESSORY position. Make certain the transaxle remains in NEUTRAL.

## Without The Ignition Key

Special care must be taken when the vehicle is towed with the ignition in the LOCK position. A dolly should be used under the front wheels if the rear wheels are raised. Proper towing equipment is necessary to prevent damage to the vehicle.

Battery power is required to release the brake/transmission interlock system. There is a removable plug in the right side of the shifter housing that allows you to insert your finger to override the system. The ignition key must be in the on position to use the override lever.

## Towing This Vehicle Behind Another Vehicle (Flat Towing With All Four Wheels On The Ground)

### CAUTION!

**DO NOT flat tow this vehicle. Damage to the drivetrain will result.**



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# MAINTAINING YOUR VEHICLE

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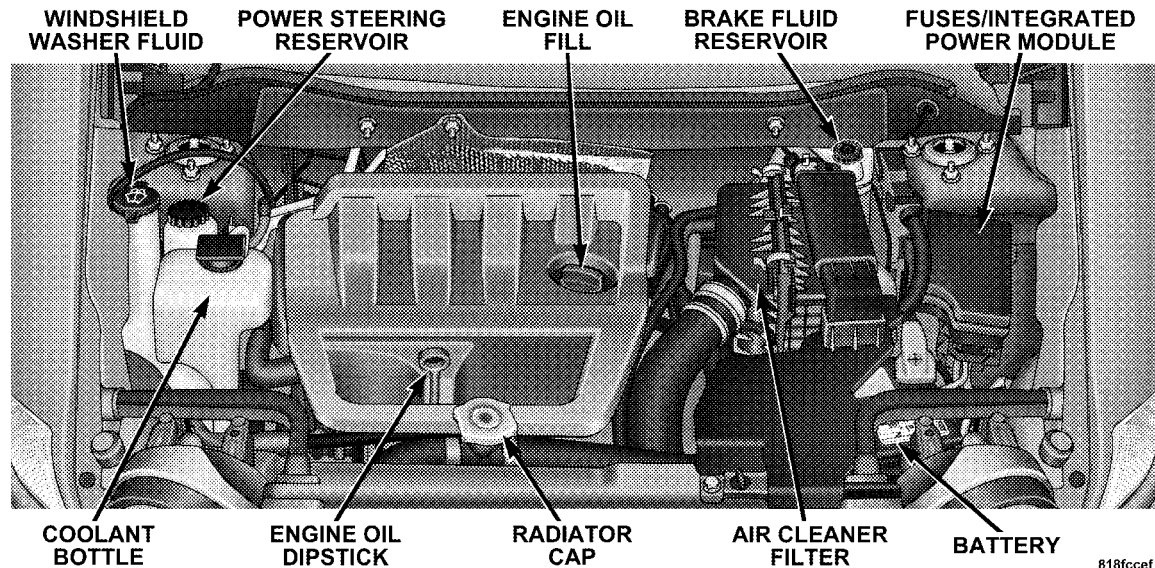
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## ENGINE COMPARTMENT — GASOLINE



### ONBOARD DIAGNOSTIC SYSTEM — OBD II

Your vehicle is equipped with a sophisticated onboard diagnostic system called OBD II. This system monitors the performance of the emissions, engine, and automatic transaxle control systems. When these systems are operating properly, your vehicle will provide excellent performance and fuel economy, as well as engine emissions well within current government regulations.

If any of these systems require service, the OBD II system will turn on the “Malfunction Indicator Light.” It will also store diagnostic codes and other information to assist your service technician in making repairs. Although your vehicle will usually be drivable and not need towing, see your dealer for service as soon as possible.

#### CAUTION!

- **Prolonged driving with the “Malfunction Indicator Light” on could cause further damage to the emission control system. It could also affect fuel economy and driveability. The vehicle must be serviced before any emissions tests can be performed.**
- **If the “Malfunction Indicator Light” is flashing while the engine is running, severe catalytic converter damage and power loss will soon occur. Immediate service is required.**

### Loose Fuel Filler Cap Message

After fuel is added, the vehicle diagnostic system can determine if the fuel filler cap is possible loose or improperly installed. A GASCAP message will be displayed in the instrument cluster. Tighten the gas cap until a "clicking" sound is heard. This is an indication that the gas cap is properly tightened. Press the trip odometer reset button to turn off the message. If the problem persists, the message will appear the next time the vehicle is started. This might indicate a damaged cap. If the problem is detected twice in a row, the system will turn on the Malfunction Indicator Light (MIL). Resolving the problem will turn the MIL light off.

### EMISSIONS INSPECTION AND MAINTENANCE PROGRAMS

In some localities, it may be a legal requirement to pass an inspection of your vehicle's emissions control system. Failure to pass could prevent vehicle registration.



For states, which have an I/M (Inspection and Maintenance) requirement, this check verifies the following: the MIL (Malfunction Indicator Light) is functioning and is not on when the engine is running, and that the OBD (On Board Diagnostic) system is ready for testing.

Normally, the OBD system will be ready. The OBD system may **not** be ready if your vehicle was recently serviced, if you recently had a dead battery, or a battery replacement. If the OBD system should be determined not ready for the I/M test, your vehicle may fail the test.

Your vehicle has a simple ignition key actuated test, which you can use prior to going to the test station. To check if your vehicle's OBD system is ready, you must do the following:

1. Insert your ignition key into the ignition switch.
2. Turn the ignition to the ON position, but do not crank or start the engine.
3. If you crank or start the engine, you will have to start this test over.
4. As soon as you turn your key to the ON position, you will see your MIL symbol come on as part of a normal bulb check.
5. Approximately 15 seconds later, one of two things will happen:
  - a. The MIL will flash for about 10 seconds and then return to being fully illuminated until you turn off the

ignition key or start the engine. This means that your vehicle's OBD system is **not ready** and you should **not** proceed to the I/M station.

- b. The MIL will not flash at all and will remain fully illuminated until you turn off the ignition key or start the engine. This means that your vehicle's OBD system is **ready** and you can proceed to the I/M station.

If your OBD system is **not ready**, you should see your authorized dealer or repair facility. If your vehicle was recently serviced or had a battery failure or replacement, you may need to do nothing more than drive your vehicle as you normally would in order for your OBD system to update. A recheck with the above test routine may then indicate that the system is now ready.

Regardless of whether your vehicle's OBD system is ready or not ready, if the MIL symbol is illuminated during normal vehicle operation, you should have your

vehicle serviced before going to the I/M station. The I/M station can fail your vehicle because the MIL symbol is on with the engine running.

### REPLACEMENT PARTS

Use of genuine Mopar® parts for normal/scheduled maintenance and repairs is highly recommended to insure the designed performance. Damage or failures caused by the use of non-Mopar® parts for maintenance and repairs will not be covered by the manufacturer's warranty.

### DEALER SERVICE

Your dealer has the qualified service personnel, special tools, and equipment to perform all service operations in an expert manner. Service Manuals are available which include detailed service information for your vehicle. Refer to these manuals before attempting any procedure yourself.

**NOTE:** Intentional tampering with emissions control systems can result in civil penalties being assessed against you.

### WARNING!

**You can be badly injured working on or around a motor vehicle. Only do service work for which you have the knowledge and the proper equipment. If you have any doubt about your ability to perform a service job, take your vehicle to a competent mechanic.**

## MAINTENANCE PROCEDURES

The pages that follow contain the **required** maintenance services determined by the engineers who designed your vehicle.

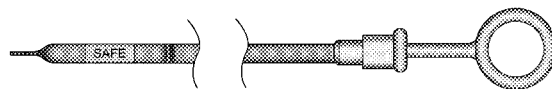
Besides the maintenance items for which there are fixed maintenance intervals, there are other items that should operate satisfactorily without periodic maintenance. However, if a malfunction of these items does occur, it could adversely affect the engine or vehicle performance. These items should be inspected if a malfunction is observed or suspected.

### Engine Oil

#### Checking Oil Level

To assure proper engine lubrication, the engine oil must be maintained at the correct level. Check the oil level at regular intervals, such as every fuel stop.

The best time to check the engine oil level is about 5 minutes after a fully warmed engine is shut off. Do not check oil level before starting the engine after it has sat overnight. Checking engine oil level when the engine is cold will give you an incorrect reading.



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Engine Oil Dipstick

Checking the oil while the vehicle is on level ground and only when the engine is hot, will improve the accuracy of the oil level readings. Maintain the oil level between the range markings on the dipstick. The range markings will consist of a crosshatch zone that says SAFE or a crosshatch zone that says MIN at the low end of the range and MAX at the high end of the range. Adding one quart of oil when the reading is at the low end of the indicated range will result in the oil level at the full end of the indicator range.

**CAUTION!**

**Do not overfill the engine. Overfilling the engine as indicated by the range markings, as described above, on the engine oil dipstick will cause oil aeration, which can lead to loss of oil pressure and an increase in oil temperature. This could damage your engine.**

**Change Engine Oil**

Refer to the “Maintenance Schedule” in Section 8 for recommended engine oil change intervals.

**Engine Oil Selection (Gasoline Engines)**

For best performance and maximum protection for all engines under all types of operating conditions, the manufacturer recommends engine oils that are API Certified and meet the requirements of DaimlerChrysler Material Standard MS-6395.



### American Petroleum Institute (API) Engine Oil Identification Symbol



This symbol means that the oil has been certified by the American Petroleum Institute (API). The manufacturer only recommends API Certified engine oils.

### Engine Oil Viscosity (SAE Grade)

SAE 5W-20 engine oil is recommended for all operating temperatures. This engine oil improves low temperature starting and vehicle fuel economy. Your engine oil filler cap also states the recommended engine oil viscosity grade for your engine.

Lubricants which do not have both, the engine oil certification mark and the correct SAE viscosity grade number should not be used.

### Synthetic Engine Oils

You may use synthetic engine oils provided the recommended oil quality requirements are met, and the recommended maintenance intervals for oil and filter changes are followed.

### Materials Added To Engine Oils

The manufacture strongly recommends against the addition of any additives (other than leak detection dyes) to the engine oil. Engine oil is an engineered product and it's performance may be impaired by supplemental additives.

**Disposing of Used Engine Oil**

Care should be taken in disposing of used engine oil from your vehicle. Used oil, indiscriminately discarded, can present a problem to the environment. Contact your dealer, service station, or governmental agency for advice on how and where used oil can be safely discarded in your area.

**Engine Oil Filter**

The engine oil filter should be replaced at every engine oil change.

**Engine Oil Filter Selection**

All of this manufacturers engines have a full-flow type disposable oil filter. Use a filter of this type for replacement. The quality of replacement filters varies considerably. Only high quality filters should be used to assure most efficient service. Mopar Engine Oil Filters are high quality oil filters and are recommended.

**Drive Belt – Check Condition**

Check the drive belt condition. Refer to the “Maintenance Schedule” in Section 8 of this manual.

Inspect the drive belt for evidence of cuts, cracks, or glazing and replace belt if any sign of damage which could result in belt failure.

The belt is self-tensioning and will not need adjustment.

**Spark Plugs**

Spark plugs must fire properly to assure engine performance and emission control. New plugs should be installed at the specified mileage. The entire set should be replaced if there is any malfunction due to a faulty spark plug. Refer to “Fluids, Lubricants, and Genuine Parts” in this section for spark plug information.

### Catalytic Converter

The catalytic converter requires the use of unleaded fuel only. Lead gasoline will destroy the effectiveness of the catalyst as an emission control device.

Under normal operating conditions, the catalytic converter will not require maintenance. However, it is important to keep the engine properly tuned to assure proper catalyst operation and prevent possible catalyst damage.

#### CAUTION!

**Damage to the catalytic converter can result if your vehicle is not kept in proper operating condition. In the event of engine malfunction, particularly involving engine misfire or other apparent loss of performance, have your vehicle serviced promptly. Continued operation of your vehicle with a severe malfunction could cause the converter to overheat, resulting in possible damage to the converter and the vehicle.**

#### WARNING!

**A hot exhaust system can start a fire if you park over materials that can burn. Such materials might be grass or leaves coming into contact with your exhaust system. Do not park or operate your vehicle in areas where your exhaust system can contact anything that can burn.**

In unusual situations involving grossly malfunctioning engine operation, a scorching odor may suggest severe and abnormal catalyst overheating. If this occurs, stop the vehicle, turn off the engine and allow it to cool. Service, including a tune up to manufacturers specifications, should be obtained immediately.

To minimize the possibility of catalyst damage:

- Do not shut off the engine or interrupt the ignition when the transaxle is in gear and the vehicle is in motion.
- Do not try to start the engine by pushing or towing the vehicle.
- Do not idle the engine with any spark plug wires disconnected for prolonged period.

### **Crankcase Emission Control System**

Proper operation of this system depends on freedom from sticking or plugging due to deposits. As vehicle mileage builds up, the PCV valve and passages may accumulate deposits. If a valve is not working properly, replace it with a new valve. **DO NOT ATTEMPT TO CLEAN THE OLD PCV VALVE!**

Check ventilation hose for indication of damage or plugging deposits. Replace if necessary.

### **Fuel Filter**

A plugged fuel filter can cause hard starting or limit the speed at which a vehicle can be driven. Should an excessive amount of dirt accumulate in the fuel tank, frequent filter replacement may be necessary. The fuel filters are located inside the fuel tank. See your dealer for service.

### **Air Cleaner Element (Filter)**

Replace the filter at the intervals shown in the "Maintenance Schedule." Refer to Section 8 of this manual.

**WARNING!**

The air cleaner can provide a measure of protection in the case of engine backfire. Do not remove the air cleaner unless such removal is necessary for repair or maintenance. Make sure that no one is near the engine compartment before starting the vehicle with the air cleaner removed. Failure to do so can result in serious personal injury.

**Maintenance-Free Battery**

You will never have to add water, nor is periodic maintenance required.

**CAUTION!**

When servicing the battery, always reinstall the battery thermowrap. The thermowrap provides battery heat protection and will extend overall battery life. Failure to reinstall the thermowrap can result in evaporative loss of the battery fluid.

**WARNING!**

Battery fluid is a corrosive acid solution and can burn or even blind you. Don't allow battery fluid to contact your eyes, skin or clothing. Don't lean over a battery when attaching clamps. If acid splashes in eyes or on skin, flush the area immediately with large amounts of water.

Battery gas is flammable and explosive. Keep flame or sparks away from the battery. Don't use a booster battery or any other booster source with an output greater than 12 volts. Don't allow cable clamps to touch each other.

Battery posts, terminals and related accessories contain lead and lead compounds. Wash hands after handling.

**CAUTION!**

It is essential when replacing the cables on the battery that the positive cable is attached to the positive post and the negative cable is attached to the negative post. Battery posts are marked positive (+) and negative (-) and identified on the battery case. Cable clamps should be tight on the terminal posts and free of corrosion. Apply grease to posts and clamps after tightening.

If a "fast charger" is used while the battery is in the vehicle, disconnect both vehicle battery cables before connecting the charger to battery. Do not use a "fast charger" to provide starting voltage as battery damage can result.

### **Air Conditioner Maintenance**

For best possible performance, your air conditioner should be checked and serviced by an Authorized Dealer at the start of each warm season. This service should include cleaning of the condenser fins and a performance test. Drive belt tension should also be checked at this time.

#### **WARNING!**

- Use only refrigerants and compressor lubricants approved by the manufacturer for your air conditioning system. Some unapproved refrigerants are flammable and can explode, injuring you. Other unapproved refrigerants or lubricants can cause the system to fail, requiring costly repairs. Refer to Section 3 of the Warranty Information book for further warranty information.
- The air conditioning system contains refrigerant under high pressure. To avoid risk of personal injury or damage to the system, adding refrigerant or any repair requiring lines to be disconnected should be done by an experienced repairman.

**Refrigerant Recovery and Recycling**

R-134a Air Conditioning Refrigerant is a hydrofluorocarbon (HFC) that is endorsed by the Environmental Protection Agency and is an ozone-saving product. However, the manufacturer recommends that air conditioning service be performed by dealers or other service facilities using recovery and recycling equipment.

**NOTE:** Use only manufacturer approved A/C System Sealers, Stop Leak Products, Seal Conditioners, Compressor Oil, or Refrigerants.

**Power Steering — Fluid Check**

Checking the power steering fluid level at a defined service interval is not required. The fluid should only be checked if a leak is suspected, abnormal noises are apparent, and/or the system is not functioning as anticipated. Coordinate inspection efforts through a certified DaimlerChrysler Dealership.

**WARNING!**

**Fluid level should be checked on a level surface and with the engine off to prevent injury from moving parts and to insure accurate fluid level reading. Do not overfill. Use only manufacturers recommended power steering fluid.**

If necessary, add fluid to restore to the proper indicated level. With a clean cloth, wipe any spilled fluid from all surfaces. Refer to “Fluids, Lubricants, and Genuine Parts” for correct fluid types.

**Front Suspension Ball Joints**

There are two front suspension lower ball joints that are permanently lubricated. Inspect these ball joints whenever under vehicle service is done. Damaged seals and their corresponding potentially damaged ball joints must be replaced.



### Body Lubrication

Locks and all body pivot points, including such items as seat tracks, doors, liftgate and hood hinges, should be lubricated periodically to assure quiet, easy operation and to protect against rust and wear. Prior to the application of any lubricant, the parts concerned should be wiped clean to remove dust and grit; after lubricating excess oil and grease should be removed. Particular attention should also be given to hood latching components to insure proper function. When performing other underhood services, the hood latch, release mechanism and safety catch should be cleaned and lubricated.

The external lock cylinders should be lubricated twice a year, preferably in the fall and spring. Apply a small amount of a high quality lubricant such as Mopar® Lock Cylinder Lubricant directly into the lock cylinder.

### Windshield Wiper Blades

Clean the rubber edges of the wiper blades and the windshield periodically with a sponge or soft cloth and a mild nonabrasive cleaner or use the washer solvent. This will remove accumulations of salt, waxes or road film and help reduce streaking and smearing.

Operation of the wipers on dry glass for long periods may cause deterioration of the wiper blades. Always use washer fluid when using the wipers to remove salt or dirt from a dry windshield. Avoid using the wiper blades to remove frost or ice from the windshield. make sure that they are not frozen to the glass before turning them on to avoid damaging the blade. Keep the blade rubber out of contact with petroleum products such as engine oil, gasoline, etc.

### Windshield Wiper Blade Replacement

1. Lift the wiper arm away from the glass.
2. Push the release tab and slide the wiper blade assembly down along the arm. Gently place the wiper arm on the windshield.
3. Install the new blade assembly onto the wiper arm tip until it locks in place.

### Windshield Washer Reservoir

The washer fluid reservoir is located in the rear of the engine compartment on the right side and should be checked for fluid level at regular intervals. Fill the reservoir with windshield washer solvent (not radiator antifreeze).

### Exhaust System

The best protection against carbon monoxide entry into the vehicle body is a properly maintained engine exhaust system.

If you notice a change in the sound of the exhaust system, or if exhaust fumes can be detected inside the vehicle, or when the underside or rear of the vehicle is damaged; have a competent technician inspect the complete exhaust system and adjacent body areas for broken, damaged, deteriorated, or mispositioned parts. Open seams or loose connections could permit exhaust fumes to seep into the passenger compartment. In addition, inspect the exhaust system each time the vehicle is raised for an oil change or lubrication. Replace as required.

**WARNING!**

Exhaust gases can injure or kill. They contain carbon monoxide (CO) which is colorless and odorless. Breathing it can make you unconscious and can eventually poison you. To avoid breathing CO, refer to Exhaust Gas in the Safety Tips section of this manual.

**Cooling System****WARNING!**

- When working near the radiator cooling fan, disconnect the fan motor lead or turn the ignition switch to the OFF position. The fan is temperature controlled and can start at any time the ignition switch is in the ON position.
- You or others can be badly burned by hot coolant or steam from your radiator. If you see or hear steam coming from under the hood, don't open the hood until the radiator has had time to cool. Never try to open a cooling system pressure cap when the radiator is hot.

**Coolant Checks**

Check engine coolant (antifreeze) protection every 12 months (before the onset of freezing weather, where applicable). If coolant is dirty or rusty in appearance, the system should be drained, flushed and refilled with fresh coolant. Check the front of the A/C condenser for any accumulation of bugs, leaves, etc. If dirty, clean by gently spraying water from a garden hose vertically down the face of the condenser.

Check the coolant recovery bottle tubing for brittle rubber, cracking, tears, cuts and tightness of the connection at the bottle and radiator. Inspect the entire system for leaks.

**Cooling System — Drain, Flush and Refill**

At the intervals shown in the “Maintenance Schedule,” the system should be drained, flushed and refilled. Refer to Section 8 of this manual.

If the solution is dirty or contains a considerable amount of sediment, clean and flush with a reliable cooling system cleaner. Follow with a thorough rinsing to remove all deposits and chemicals. Properly dispose of old antifreeze solution.

**Selection Of Coolant**

Use only the manufacturers recommended coolant, refer to “Fluids, Lubricants and Genuine Parts” for correct coolant type.

**CAUTION!**

**Mixing of coolants other than specified Hybrid Organic Additive Technology (HOAT) engine coolants, may result in engine damage and may decrease corrosion protection. If a non-HOAT coolant is introduced into the cooling system in an emergency, it should be replaced with the specified coolant as soon as possible.**

**Do not use plain water alone or alcohol base engine coolant (antifreeze) products. Do not use additional rust inhibitors or antirust products, as they may not be compatible with the radiator engine coolant and may plug the radiator.**

**This vehicle has not been designed for use with Propylene Glycol based coolants. Use of Propylene Glycol based coolants is not recommended.**

**Adding Coolant**

Your vehicle has been built with an improved engine coolant that allows extended maintenance intervals. This coolant can be used up to 5 Years or 100,000 miles before replacement. To prevent reducing this extended maintenance period, it is important that you use the same coolant throughout the life of your vehicle. Please review these recommendations for using Hybrid Organic Additive Technology (HOAT) coolant.

When adding coolant, a minimum solution of 50% recommended Mopar Antifreeze/ Coolant 5 Year/100,000 Mile Formula HOAT (Hybrid Organic Additive Technology), or equivalent, in water should be used. Use higher concentrations (not to exceed 70%) if temperatures below  $-34^{\circ}\text{F}$  ( $-37^{\circ}\text{C}$ ) are anticipated.

Use only high purity water such as distilled or deionized water when mixing the water/engine coolant solution.

The use of lower quality water will reduce the amount of corrosion protection in the engine cooling system.

Please note that it is the owner's responsibility to maintain the proper level of protection against freezing according to the temperatures occurring in the area where the vehicle is operated.

**NOTE:** Mixing coolant types will decrease the life of the engine coolant and will require more frequent coolant changes.

### **Cooling System Pressure Cap**

The cap must be fully tightened to prevent loss of coolant, and to insure that coolant will return to the radiator from the coolant recovery bottle.

The cap should be inspected and cleaned if there is any accumulation of foreign material on the sealing surfaces.

### **WARNING!**

- The warning words "DO NOT OPEN HOT" on the cooling system pressure cap are a safety precaution. Never add coolant when the engine is overheated. Do not loosen or remove the cap to cool an overheated engine. Heat causes pressure to build up in the cooling system. To prevent scalding or injury, do not remove the pressure cap while the system is hot or under pressure.
- Do not use a pressure cap other than the one specified for your vehicle. Personal injury or engine damage may result.

**Disposal of Used Engine Coolant**

Used ethylene glycol based engine coolant is a regulated substance requiring proper disposal. Check with your local authorities to determine the disposal rules for your community. To prevent ingestion by animals or children do not store ethylene glycol based engine coolant in open containers or allow it to remain in puddles on the ground. If ingested by a child, contact a physician immediately. Clean up any ground spills immediately.

**Coolant Level**

The coolant bottle provides a quick visual method for determining that the coolant level is adequate. With the engine idling and warm to normal operating temperature, the level of the coolant in the bottle should be between the “ADD” and “FULL” lines, shown on the bottle.

The radiator normally remains completely full, so there is no need to remove the radiator cap unless checking for coolant freeze point or replacing coolant. Advise your service attendant of this. As long as the engine operating temperature is satisfactory, the coolant bottle need only be checked once a month.

When additional coolant is needed to maintain the proper level, it should be added to the coolant bottle. Do not overfill.

**Points To Remember**

**NOTE:** When the vehicle is stopped after a few miles (a few kilometers) of operation, you may observe vapor coming from the front of the engine compartment. This is normally a result of moisture from rain, snow, or high humidity accumulating on the radiator and being vaporized when the thermostat opens, allowing hot coolant to enter the radiator.

If an examination of your engine compartment shows no evidence of radiator or hose leaks, the vehicle may be safely driven. The vapor will soon dissipate.

- Do not overfill the coolant recovery bottle.
- Check coolant freeze point in the radiator and in the coolant recovery bottle. If antifreeze needs to be added, contents of coolant recovery bottle must also be protected against freezing.
- If frequent coolant additions are required, or if the level in the coolant recovery bottle does not drop when the engine cools, the cooling system should be pressure tested for leaks.
- Maintain coolant concentration at 50% HOAT engine coolant (minimum) and distilled water for proper corrosion protection of your engine which contains aluminum components.
- Make sure that the radiator and coolant recovery bottle overflow hoses are not kinked or obstructed.
- Keep the front of the radiator clean. If your vehicle is equipped with air conditioning, keep the front of the condenser clean, also.
- Do not change the thermostat for summer or winter operation. If replacement is ever necessary, install ONLY the correct type thermostat. Other designs may result in unsatisfactory coolant performance, poor gas mileage, and increased emissions.



**Hoses And Vacuum/Vapor Harnesses**

Inspect surfaces of hoses and nylon tubing for evidence of heat and mechanical damage. Hard or soft spots, brittle rubber, cracking, tears, cuts, abrasions, and excessive swelling indicate deterioration of the rubber

Pay particular attention to the hoses nearest to high heat sources such as the exhaust manifold. Inspect hose routing to be sure hoses do not touch any heat source or moving component that may cause heat damage or mechanical wear.

Insure nylon tubing in these areas has not melted or collapsed

Inspect all hose connections such as clamps and couplings to make sure the are secure and no leaks are present.

Components should be replaced immediately if there is any evidence of degradation that could cause failure.

**Fuel System Connections**

Electronic Fuel Injection high pressure fuel systems are designed with tubes and special connects, connections and clamps which have unique material characteristics to provide adequate sealing and resist attack by deteriorated gasoline.

You are urged to use only the manufactures-specified tubes, connections and clamps, or their equivalent in material and specification, in any fuel system servicing.

**Brake System**

In order to assure brake system performance, all brake system components should be inspected periodically. Suggested service intervals can be found in the Maintenance Section.

**WARNING!**

**Riding the brakes can lead to brake failure and possibly an accident. Driving with your foot resting or riding on the brake pedal can result in abnormally high brake temperatures, excessive lining wear, and possible brake damage. You wouldn't have your full braking capacity in an emergency.**

**Brake And Power Steering System Hoses**

When servicing the vehicle for scheduled maintenance, inspect the surface of the hoses and nylon tubing for evidence of heat and mechanical damage. Hard and brittle rubber, cracking, tears, cuts, abrasions, and excessive swelling suggest deterioration of the rubber. Particular attention should be made to examining those hose surfaces nearest to high heat sources, such as the exhaust manifold.

Inspect all hose clamps and couplings to make sure they are secure and no leaks are present.

Insure nylon tubing in these areas has not melted or collapsed.

**NOTE:** Often, fluids such as oil, power steering fluid, and brake fluid are used during assembly plant operations to ease the assembly of hoses to couplings. Therefore, oil wetness at the hose-coupling area is not necessarily an indication of leakage. Actual dripping of hot fluid when systems are under pressure (during vehicle operation) should be noted before a hose is replaced based on leakage.

**NOTE:** Inspection of brake hoses should be done whenever the brake system is serviced and at every engine oil change.

**WARNING!**

**Worn brake hoses can burst and cause brake failure. You could have an accident. If you see any signs of cracking, scuffing, or worn spots, have the brake hoses replaced immediately.**

**Brake Master Cylinder**

The fluid level in the master cylinder should be checked when performing under hood services, or immediately if the brake system warning lamp is on.

Be sure to clean the top of the master cylinder area before removing the cap. If necessary, add fluid to bring the fluid level up to the requirements described on the brake fluid reservoir. Fluid level can be expected to fall as the brake pads wear. Brake fluid level should be checked when pads are replaced. However, low fluid level may be caused by a leak and a checkup may be needed.

**NOTE:** If your vehicle is equipped with a **Manual Transaxle**, the Brake Fluid Reservoir supplies fluid to both the Brake System and the Clutch Release System. The two systems are separated in the reservoir and a leak in one system will not affect the other system. The **Manual Transaxle** Clutch Release System should not require fluid replacement during the life of the vehicle. If the Brake Fluid Reservoir is low, and the brake system does not indicate any leaks or other problems, it may be a result of a leak in the Hydraulic Clutch Release System. See your local authorized dealer for service.

Use only manufacturers recommended brake fluid, refer to “Fluids, Lubricants, and Genuine Parts” for correct fluid type.

**WARNING!**

Use of a brake fluid that may have a lower initial boiling point or unidentified as to specification, may result in sudden brake failure during hard prolonged braking. You could have an accident.

**CAUTION!**

Use of improper brake fluids will affect overall clutch system performance. Improper brake fluids may damage the clutch system resulting in loss of clutch function and the ability to shift the transaxle.

**WARNING!**

Overfilling the brake fluid reservoir can result in spilling brake fluid on hot engine parts and the brake fluid catching fire.

Use only brake fluid that has been in a tightly closed container to avoid contamination from foreign matter.

Do not allow petroleum based fluid to contaminate the brake fluid as seal damage will result!

## Automatic Transaxle (CVT)

### Selection Of Lubricant

It is important that the proper lubricant is used in the transaxle to assure optimum transaxle performance. Use only the manufacturer's recommended transmission fluid which has been formulated with special metal to metal friction coefficient additives to provide the proper steel belt traction on the drive and driven pulleys. Refer to "Fluids, Lubricants and Genuine Parts" for correct fluid type.

### CAUTION!

Using a transmission fluid other than the manufacturers recommended fluid will cause belt slip and result in a complete transmission failure! Refer to "Fluids, Lubricants, and Genuine Parts" for correct fluid type.

### Fluid Level Check

The fluid level in the automatic transaxle should be checked only by a trained technician.

### Fluid and Filter Changes

Refer to the "Maintenance Schedule" in Section 8 of this manual for the correct change interval.

### Special Additives

Do not add any materials (other than leak detection dyes) to Continuously Variable Transaxle (CVT) Fluid (CVTF+4). CVTF+4 is an engineered product and its performance may be impaired by supplemental additives.

### Manual Transaxle

#### Lubricant Selection

Use only the manufacturers recommended transmission fluid. Refer to "Fluids, Lubricants, and Genuine Parts" for correct fluid type.

**Fluid Level Check**

Check the fluid level by removing the fill plug. The fluid level should be between the bottom of the fill hole and a point not more than  $3/16$ " (4.7 mm) below the bottom of the hole.

Add fluid, if necessary, to maintain the proper level.

**Frequency Of Fluid Change**

Under normal operating conditions, the fluid installed at the factory will give satisfactory lubrication for the life of the vehicle. Fluid changes are not necessary unless the following conditions exist:

- The lubricant has become contaminated with water. If contaminated with water, the fluid should be changed immediately.

**Rear Drive Assembly (RDA )– AWD/4WD Models Only****Lubricant Selection**

Use only the manufacturers recommended fluid. Refer to "Fluids, Lubricants and Genuine Parts" for correct fluid type.

**Fluid Level Check**

Visually inspect the unit at each oil change for leakage. If leakage is detected, Check the fluid level by removing the fill plug. The fluid level should be maintained between the bottom of the fill hole to  $1/8$  inch (4 mm) below the fill hole.

Add fluid, if necessary, to maintain the proper level.

**Frequency Of Fluid Change**

Refer to the "Maintenance Schedule" located in Section 8 of this manual for the correct change interval.

## **Power Transfer Unit (PTU) – AWD/4WD Models Only**

### **Lubricant Selection**

Use only the manufacturers recommended fluid. Refer to “Fluids, Lubricants, and Genuine Parts” for correct fluid type.

### **Fluid Level Check**

Visually inspected the unit at each oil change for leakage. If leakage is detected, Check the fluid level by removing the fill plug. The fluid level should be maintained between the bottom of the fill hole to 1/8 inch (4 mm) below the fill hole.

Add fluid, if necessary, to maintain the proper level.

### **Frequency Of Fluid Change**

Refer to the “Maintenance Schedule” located in Section 8 of this manual for the correct change interval.

## **Appearance Care And Protection From Corrosion**

### **Protection Of Body And Paint from Corrosion**

Vehicle body care requirements vary according to geographic locations and usage. Chemicals that make roads passable in snow and ice, and those that are sprayed on trees and road surfaces during other seasons, are highly corrosive to the metal in your vehicle. Outside parking, which exposes your vehicle to airborne contaminants, road surfaces on which the vehicle is operated, extreme hot or cold weather and other extreme conditions will have an adverse effect on paint, metal trim, and under-body protection.

The following maintenance recommendations will enable you to obtain maximum benefit from the corrosion resistance built into your vehicle.

**What Causes Corrosion?**

Corrosion is the result of deterioration or removal of paint and protective coatings from your vehicle.

The most common causes are:

- Road salt, dirt and moisture accumulation.
- Stone and gravel impact.
- Insects, tree sap and tar.
- Salt in the air near sea coast localities.
- Atmospheric fallout/industrial pollutants.

**Washing**

- Wash your vehicle regularly. Always wash your vehicle in the shade using Mopar Car Wash or a mild car wash soap, and rinse the panels completely with clear water.

- If insects, tar or other similar deposits have accumulated on your vehicle, use Mopar Super Kleen Bug and Tar Remover to remove.
- Use Mopar Cleaner Wax to remove road film, stains and to protect your paint finish. Take care never to scratch the paint.
- Avoid using abrasive compounds and power buffing that may diminish the gloss or thin out the paint finish.

**CAUTION!**

**Do not use abrasive or strong cleaning materials such as steel wool or scouring powder, which will scratch metal and painted surfaces.**



### Special Care

- If you drive on salted or dusty roads or if you drive near the ocean, hose off the undercarriage at least once a month.
- It is important that the drain holes in the lower edges of the doors, rocker panels and trunk be kept clear and open.
- If you detect any stone chips or scratches in the paint, touch them up immediately. The cost of such repairs is considered the responsibility of the owner.
- If your vehicle is damaged due to an accident or similar cause which destroys the paint and protective coating, have your vehicle repaired as soon as possible. The cost of such repairs is considered the responsibility of the owner.
- If you carry special cargo such as chemicals, fertilizers, de-icer salt, etc., be sure that such materials are well packaged and sealed.

- If a lot of driving is done on gravel roads, consider mud or stone shields behind each wheel.
- Use Mopar touch up paint on scratches as soon as possible. Your dealer has touch up paint to match the color of your vehicle.

### Wheel and Wheel Trim Care

All wheels and wheel trim, especially aluminum and chrome plated wheels should be cleaned regularly with a mild soap and water to prevent corrosion. To remove heavy soil, use Mopar Wheel Cleaner or select a nonabrasive, non-acidic cleaner. Do not use scouring pads, steel wool, a bristle brush or metal polishes. Only Mopar cleaners are recommended. Do not use oven cleaner. Avoid automatic car washes that use acidic solutions or harsh brushes that may damage the wheels' protective finish.

**YES Essentials® Fabric Cleaning Procedure – If Equipped**

YES Essentials® seats may be cleaned in the following manner:

- Remove as much of the stain as possible by blotting with a clean, dry towel.
- Blot any remaining stain with a clean, damp towel.
- For tough stains, apply Mopar® Total Clean or a mild soap solution to a clean, damp cloth and remove stain. Use a fresh, damp towel to remove soap residue.
- For grease stains, apply Mopar® Multi-purpose cleaner to a clean, damp cloth and remove stain. Use a fresh, damp towel to remove soap residue.
- Do not use any solvents or protectants on Yes Essentials products.

**Interior Care**

Use Mopar Total Clean to clean fabric upholstery and carpeting.

Use Mopar Total Clean to clean vinyl upholstery.

Mopar Total Clean is specifically recommended for leather upholstery.

Your leather upholstery can be best preserved by regular cleaning with a damp soft cloth. Small particles of dirt can act as an abrasive and damage the leather upholstery and should be removed promptly with a damp cloth. Stubborn soils can be removed easily with a soft cloth and Mopar Total Clean. Care should be taken to avoid soaking your leather upholstery with any liquid. Please do not use polishes, oils, cleaning fluids, solvents, detergents, or ammonia based cleaners to clean your leather upholstery. Application of a leather conditioner is not required to maintain the original condition.

**WARNING!**

**Do not use volatile solvents for cleaning purposes. Many are potentially flammable, and if used in closed areas they may cause respiratory harm.**

**Cleaning Headlights**

Your vehicle has plastic headlights that are lighter and less susceptible to stone breakage than glass headlights.

Plastic is not as scratch resistant as glass and therefore different lens cleaning procedures must be followed.

To minimize the possibility of scratching the lenses and reducing light output, avoid wiping with a dry cloth. To remove road dirt, wash with a mild soap solution followed by rinsing.

Do not use abrasive cleaning components, solvents, steel wool or other aggressive material to clean the lenses.

**Glass Surfaces**

All glass surfaces should be cleaned on a regular basis with Mopar Glass Cleaner or any commercial household-type glass cleaner. Never use an abrasive type cleaner. Use caution when cleaning the inside rear window equipped with electric defrosters or the right rear quarter window equipped with the radio antenna. Do not use scrapers or other sharp instruments which may scratch the elements. When cleaning the rear view mirror, spray cleaner on the towel or rag that you are using. Do not spray cleaner directly on the mirror.

**Instrument Panel Cover**

The instrument panel cover has a low glare surface which minimizes reflections in the windshield. Do not use protectants or other products which may cause undesirable reflections. Use soap and warm water to restore the low glare surface.

## Instrument Panel Bezels

### CAUTION!

**When installing hanging air fresheners in your vehicle, read the installation instructions carefully. Some air fresheners will damage the finish of painted or decorated parts if allowed to directly contact any surface.**

## Cleaning Plastic Instrument Cluster Lenses

The lenses in front of the instruments in this vehicle are molded in clear plastic. When cleaning the lenses, care must be taken to avoid scratching the plastic.

1. Clean with a wet soft rag. A mild soap solution may be used, but do not use high alcohol content or abrasive cleaners. If soap is used, wipe clean with a clean damp rag.

2. Dry with a soft tissue.

## Seat Belt Maintenance

Do not bleach, dye or clean the belts with chemical solvents or abrasive cleaners. This will weaken the fabric. Sun damage can also weaken the fabric.

If the belts need cleaning, use a mild soap solution or lukewarm water. Do not remove the belts from the car to wash them.

Replace the belts if they appear frayed or worn or if the buckles do not work properly.

Dry with a soft tissue.

**FUSES/INTEGRATED POWER MODULE (IPM)**

An Integrated Power Module is located in the engine compartment near the air cleaner assembly. This center contains cartridge fuses and mini fuses. A label that identifies each component may be printed on the inside of the cover. Refer to “Engine Compartment” in this section of the owner’s manual for the underhood location of the Integrated Power Module (IPM).

Cavity	Cartridge Fuse	Mini Fuse	Description
1	Empty		Empty
2		15 Amp Lt. Blue	AWD/4WD ECU Feed
3		10 Amp Red	CHMSL Brake Switch Feed
4		10 Amp Red	Ignition Switch Feed
5		20 Amp Yellow	Trailer Tow

Cavity	Cartridge Fuse	Mini Fuse	Description
6		10 Amp Red	IOD Sw/Pwr Mir/Ocm Steering Cntrl Sdar/ Hands Free Phone
7		30 Amp Green	IOD Sense1
8		30 Amp Green	IOD Sense2
9	40 Amp Green		Power Seats
10		20 Amp Yellow	CCN Power Locks
11		15 Amp Lt Blue	Power Outlet
12		20 Amp Yellow	Ign Run/Acc Inverter
13		20 Amp Yellow	Pwr run/Acc Outlet RR

Cavity	Cartridge Fuse	Mini Fuse	Description
14		10 Amp Red	IOD CCN/ Interior Lighting
15	40 Amp Green		RAD Fan Relay Battery Feed
16		15 Amp Lt. Blue	IGN Run/Acc Cigar Ltr/Sunroof
17		10 Amp Red	IOD Feed Mod-Wcm
18	40 Amp Green		ASD Relay Contact PWR Feed
19		20 Amp Yellow	PWR Amp 1 & Amp 2 Feed
20		15 Amp Lt. Blue	IOD Feed Radio
21		10 Amp Red	IOD Feed Intrus Mod/Siren

Cavity	Cartridge Fuse	Mini Fuse	Description
22		10 Amp Red	IGN RUN Heat/AC/ Compass Sensor
23		15 Amp Lt. Blue	ENG ASD Relay Feed 3
24		15 Amp Lt. Blue	Power Sunroof Feed
25		10 Amp Red	Heated Mirror
26		15 Amp Lt. Blue	ENG ASD Relay Feed 2
27		10 Amp Red	IGN RUN Only ORC Feed
28		10 Amp Red	IGN RUN ORC/OCM Feed
29			Hot Car (No Fuse Required)

Cavity	Cartridge Fuse	Mini Fuse	Description
30		20 Amp Yellow	Heated Seats
31		10 Amp Red	Headlamp Washer Relay Control
32	30 Amp Pink		ENG ASD Control Feed 1
33		10 Amp Red	ABS MOD/J1962 Conn/PCM
34	30 Amp Pink		ABS Valve Feed
35	40 Amp Green		ABS Pump Feed
36	30 Amp Pink		Headlamp /Washer Control / Smart Glass
37		25 Amp Natural	110 Inverter

### CAUTION!

- When installing the Integrated Power Module cover, it is important to ensure the cover is properly positioned and fully latched. Failure to do so may allow water to get into the Integrated Power Module, and possibly result in an electrical system failure.
- When replacing a blown fuse, it is important to use only a fuse having the correct amperage rating. The use of a fuse with a rating other than indicated may result in a dangerous electrical system overload. If a properly rated fuse continues to blow, it indicates a problem in the circuit that must be corrected.

**VEHICLE STORAGE**

If you will not be using your vehicle for more than 21 days you may want to take steps to preserve your battery. You may:

- Disengage the mini fuse in the Power Distribution Center labeled IOD (Ignition Off-Draw).
- Or, disconnect the negative cable from the battery.

**REPLACEMENT BULBS**

All the inside bulbs are brass or glass wedge base. Aluminum base bulbs are not approved and should not be used for replacement.

<b>LIGHT BULBS — Interior</b>	<b>Bulb Number</b>
Front Header Lamp . . . . .	T578
Center Dome Lamp . . . . .	T578
Rear Cargo/Flashlight . . . . .	8-A35LF

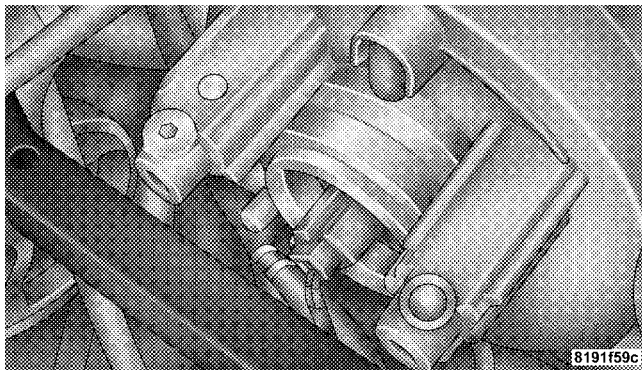
**LIGHTS BULBS — Outside****Bulb No.**

Low Beam/High Beam Headlight . . . . .	H13
Front Park/Turn Signal/Side Marker Light . . . . .	3157AK or 3157A
Front Fog Light . . . . .	9145
Center High Mounted Stop Light (CHMSL) . . . . .	LED Assembly
Rear Tail/Stop . . . . .	3157
Rear Turn Signal . . . . .	3757AK or 3757A
Backup Light . . . . .	W16W (921)
License Light . . . . .	W5W
Off-Road Light . . . . .	H3



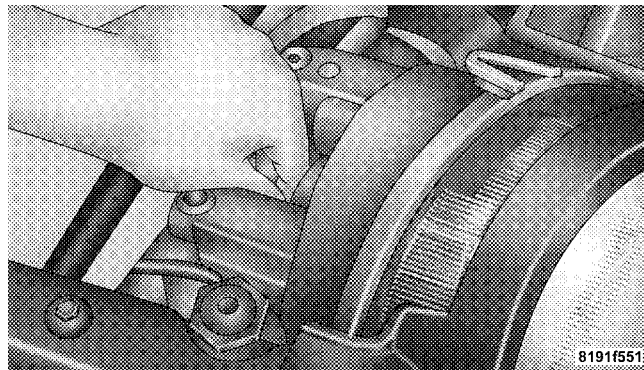
## BULB REPLACEMENT

### Headlamps



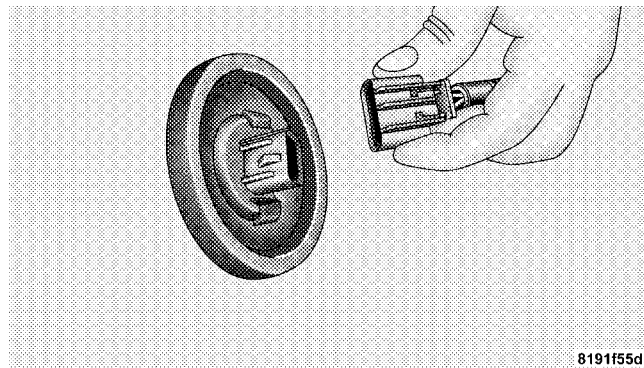
Locating Headlamp Connector

- Raise the hood and locate connector behind the headlamp.

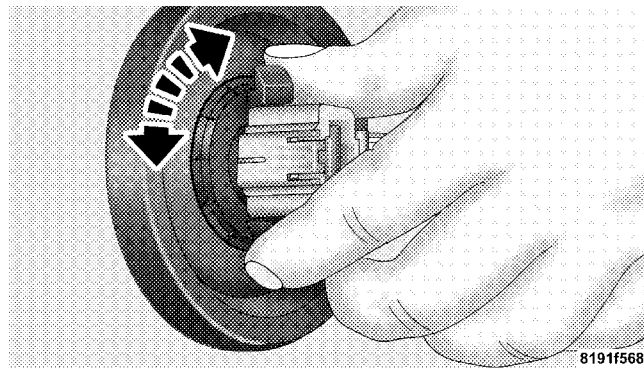


Releasing Red Lock Tab

- Reach into engine compartment and pull red lock out at connector.



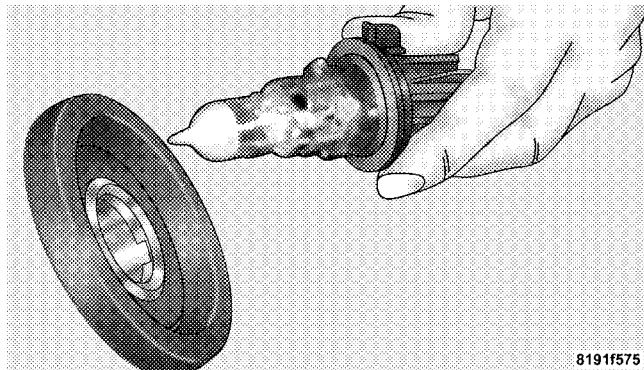
**Remove green connector from back of bulb by pulling straight back**



#### **Twisting Bulb From Socket**

- Twist the bulb to the left and pull outward from assembly.

**NOTE:** These are halogen bulbs. Take care not to touch the bulb with your fingers. Body oils from your fingers could cause excessive heat buildup which reduces bulb life.



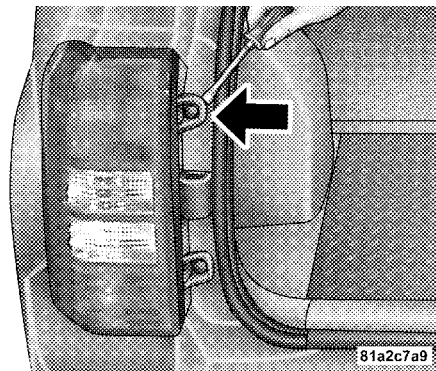
**Removing Halogen Bulb From Assembly**

### **Fog Lights**

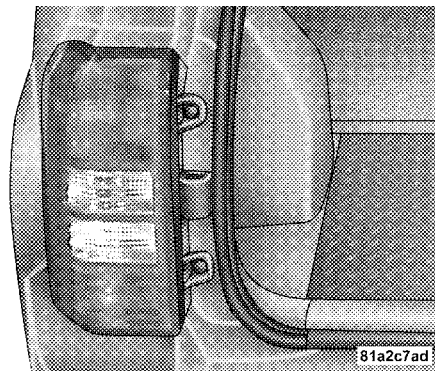
See your authorized dealer for replacement.

### **Tail Lights, Rear Turn Signals And Backup Lights — Replacement**

1. Remove the two push-pins from the tail light housing.

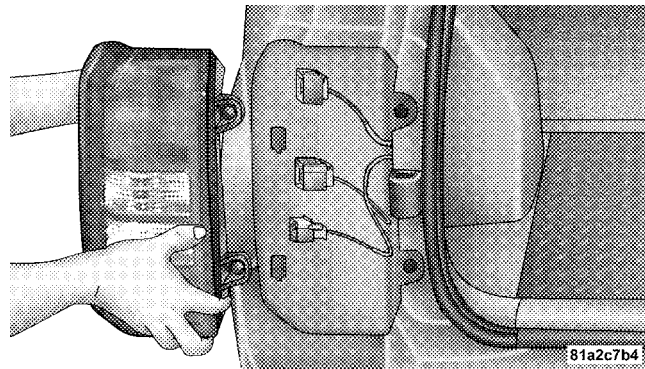


**Removing Push-Pins**



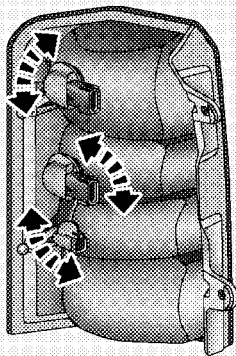
**Push-Pins Removed**

2. Grasp the tail lamp and pull firmly to disengage the lamp from the aperture panel.



**Pulling Lamp From Body**

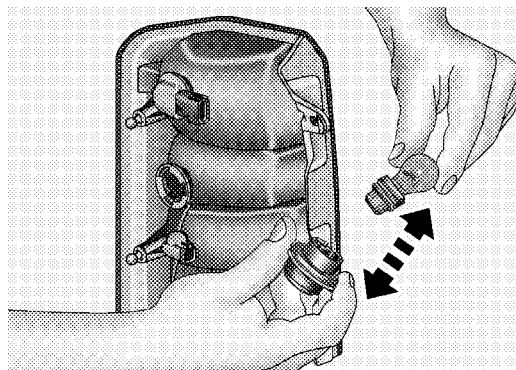
3. Twist and remove socket from lamp.



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Removing Socket and Bulb

4. Remove bulb from socket and replace.



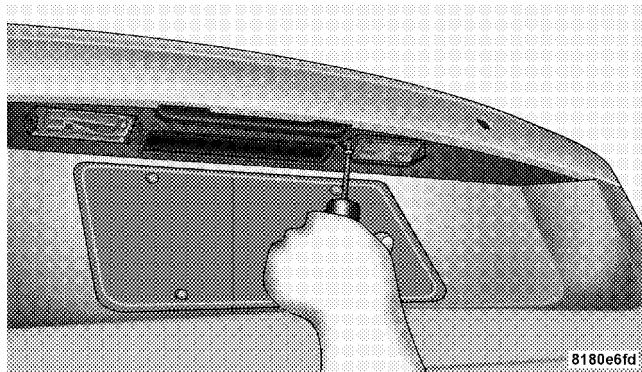
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Removing Bulb From Socket



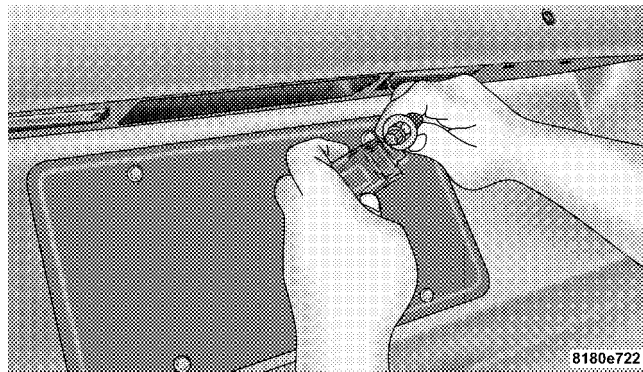
## License Lights

1. Use a screw driver to gently pry against the side of the snap tab to remove the lamp from the liftgate.



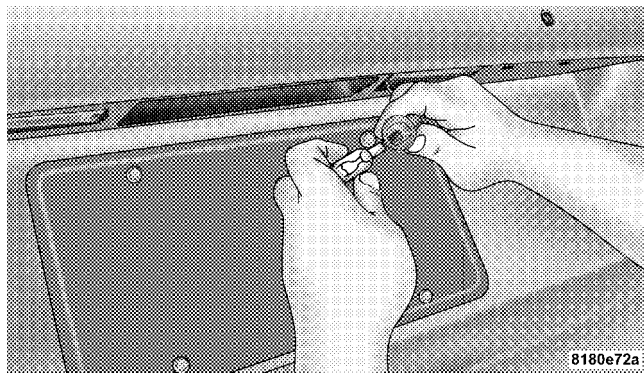
**Prying Lamp from Liftgate**

2. Rotate the socket 1/4 turn counterclockwise.



**Removing Socket from Lamp**

3. Pull bulb from socket.



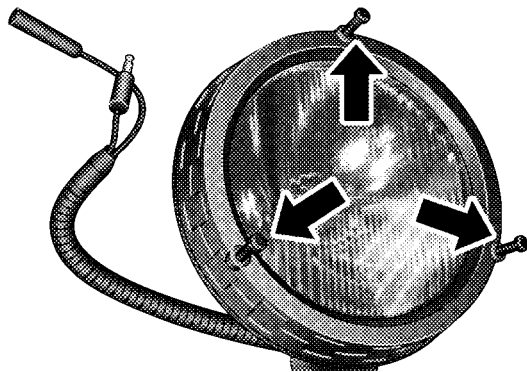
**Removing Bulb From Socket**

### **Center High-Mounted Stoplight**

Light is an LED assembly. See your authorized dealer for replacement.

### **Auxiliary Off-Road Light**

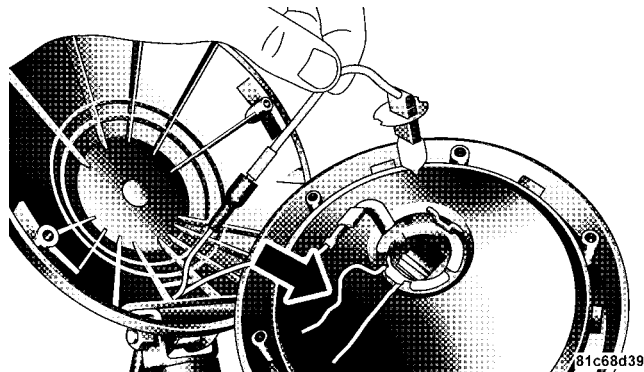
1. Remove the three screws attaching the lens to the housing.



**Lens Removal**

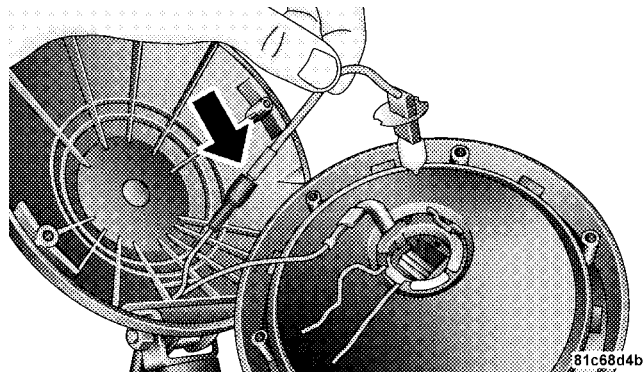
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2. Unlatch the wire clasp securing the bulb into the housing and rotate it into the position shown.



Releasing the bulb

3. Disconnect the bulb from the lamp harness to replace the bulb.



Disconnecting bulb



## FLUIDS AND CAPACITIES

	U.S.	Metric
<b>Fuel (Approximate)</b>	13.5 Gallons	51.0 Liters
<b>Engine Oil-With Filter</b>		
All Gasoline Engines (Use API Certified SAE 5W-20 Engine Oil.)	4.5 Quarts	4.26 Liters
<b>Cooling System *</b>		
Mopar® Antifreeze/Coolant 5 Year/100,000 Miles Formula), or equivalent.	7.2 Quarts	6.8 Liters
* Includes heater and coolant recovery bottle filled to MAX level.		

**FLUIDS, LUBRICANTS, AND GENUINE PARTS****Engine**

<b>Component</b>	<b>Fluids, Lubricants and Genuine Parts</b>
Engine Coolant	Mopar® Antifreeze/Coolant 5 Year/100,000 Mile Formula HOAT (Hybrid Organic Additive Technology) or equivalent.
Engine Oil	Use API Certified SAE 5W-20 Engine Oil. Refer to your engine oil filler cap for correct SAE grade meeting DaimlerChrysler Material Standard MS-6395.
Engine Oil Filter	Mopar® 04884900AB or equivalent.
Spark Plugs	ZFR5F-11 (Gap 0.043")
Fuel Selection	87 Octane (R + M)/2

## Chassis

Component	Fluids, Lubricants and Genuine Parts.
Automatic Transaxle (CVT) Fluid	Mopar® CVTF + 4
Manual Transaxle Fluid	Mopar® ATF+4 MS9602
Rear Drive Assembly (RDA)	Mopar® Gear & Axle Lubricant SAE 80W-90 API GL 5 or equivalent non-synthetic product.
Power Transfer Unit (PTU)	Mopar® Gear & Axle Lubricant SAE 80W-90 API GL 5 or equivalent non-synthetic product.
Brake Master Cylinder	Mopar® DOT 3, SAE J1703 should be used. If DOT 3, SAE J1703 brake fluid is not available, then DOT 4 is acceptable. Use only recommended brake fluids or equivalent.
Power Steering Reservoir	Mopar® Power Steering Fluid +4 or Mopar®ATF+4 Automatic Transmission Fluid.



# MAINTENANCE SCHEDULES

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## 390 MAINTENANCE SCHEDULES

### EMISSION CONTROL SYSTEM MAINTENANCE

The “Scheduled” maintenance services, listed in **bold type** must be done at the times or mileages specified to assure the continued proper functioning of the emission control system. These, and all other maintenance services included in this manual, should be done to provide best vehicle performance and reliability. More frequent maintenance may be needed for vehicles in severe operating conditions such as dusty areas and very short trip driving.

Inspection and service also should be done any time a malfunction is suspected.

**NOTE:** Maintenance, replacement, or repair of the emission control devices and systems on your vehicle may be performed by any automotive repair establishment or individual using any automotive part, which has been certified pursuant to U.S. EPA or, in the State of California, California Air Resources Board regulations.

### MAINTENANCE SCHEDULE

The oil change indicator system will remind you that it is time to take your vehicle in for scheduled maintenance.

On Electronic Vehicle Information Center (EVIC) equipped vehicles “Oil Change Required” will be displayed in the EVIC and a single chime will sound, indicating that an oil change is necessary.

On Non-EVIC equipped vehicles “Change Oil” will flash in the instrument cluster odometer and a single chime will sound, indicating that an oil change is necessary.

Based on engine operation condition the oil change indicator message will illuminate, this means that service is required for your vehicle. Have your vehicle serviced as soon as possible, within the next 500 miles (805 km).

# NOTE:

- The oil change indicator message will not monitor the time since the last oil change. Change your vehicles oil if it has been 6 months since your last oil change even if the oil change indicator message is NOT illuminated.
- Change your engine oil more often if you drive your vehicle off-road for an extended period of time.
- Under no circumstances should oil change intervals exceed 6,000 miles (10,000 km) or 6 months, whichever comes first.

Your dealer will reset the oil change indicator message after completing the scheduled oil change. If this scheduled oil change is performed by someone other than your dealer the message can be reset by referring to the steps described under “Oil Change Required” in “Use Factory

Settings” of the EVIC section in this manual or under “Odometer/Trip Odometer” in the “Instrument Cluster Descriptions section of this manual.

## *At Each Stop for Fuel*

- Check the engine oil level about 5 minutes after a fully warmed engine is shut off. Checking the oil level while the vehicle is on level ground will improve the accuracy of the oil level reading. Add oil only when the level is at or below the ADD or MIN mark.
- Check the windshield washer solvent and add if required.

## 392 MAINTENANCE SCHEDULES

### *Once a Month*

- Check tire pressure and look for unusual wear or damage.
- Inspect the battery and clean and tighten the terminals as required.
- Check the fluid levels of coolant reservoir, brake master cylinder, power steering and transmission and add as needed.
- Check all lights and other electrical items for correct operation.

### *At Each Oil Change*

- Change the engine oil filter.
- Inspect the brake hoses and lines.
- Check the Manual Transmission fluid level.

### **CAUTION!**

**Failure to perform the required maintenance items may result in damage to the vehicle.**



# Required Maintenance Intervals

Maintenance Items	Perform Maintenance Every (Where time and mileage are listed, follow the interval that occurs first.)		
	Miles	Kilometers	or Months
Change the engine oil and engine oil filter.	6,000	10 000	6
Rotate Tires.	6,000	10 000	6
If using your vehicle for any of the following: Dusty or off-road conditions. Inspect the engine air cleaner filter, replace if necessary.	12,000	20 000	12
Inspect the brake linings, replace if necessary.	12,000	20 000	12
Replace the air conditioning filter.	12,000	20 000	12
Inspect the CV Joints. Perform the first inspection at 12,000 miles (20 000 km) or 12 months.	24,000	40 000	24
Inspect Exhaust System. Perform the first inspection at 12,000 miles (20 000 km) or 12 months.	24,000	40 000	24
Inspect the front suspension, tie rod ends and boot seals, replace if necessary.	24,000	40 000	24
Replace the engine air cleaner filter.	30,000	50 000	30

## 394 MAINTENANCE SCHEDULES

Maintenance Items	Perform Maintenance Every (Where time and mileage are listed, follow the interval that occurs first.)		
	Miles	Kilometers	or Months
<b>Replace the spark plugs (2.0L/2.4L Engines).</b>	30,000	50 000	30
Change the manual transmission fluid if using your vehicle for any of the following: trailer towing, snow plowing, heavy loading, taxi, police, delivery service (commercial service), off-road, desert operation or more than 50% of your driving is at sustained high speeds during hot weather, above 90°F (32°C).	48,000	80 000	48
Change Rear Drive Assembly (RDA) fluid.	60,000	100 000	60
Change Power Transfer Unit (PTU) fluid.	60,000	100 000	60
Change the automatic transmission fluid & filter if using your vehicle for any of the following: police, taxi, fleet or frequent trailer towing.	60,000	100 000	60
<b>Inspect and replace PCV valve if necessary.</b>	90,000	150 000	90
Flush and replace the engine coolant.	102,000	170 000	60
<b>Replace the timing belt (2.4L engines).</b>	102,000	170 000	102

Maintenance Items	Perform Maintenance Every (Where time and mileage are listed, follow the interval that occurs first.)		
	Miles	Kilometers	or Months
Change the automatic transmission fluid & filter.	120,000	200 000	120
Replace Accessory Drive Belt(s).	120,000	200 000	120

### WARNING!

You can be badly injured working on or around a motor vehicle. Do only that service work for which you have the knowledge and the right equipment. If you have any doubt about your ability to perform a service job, take your vehicle to a competent mechanic.



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## IF YOU NEED CONSUMER ASSISTANCE

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## **SUGGESTIONS FOR OBTAINING SERVICE FOR YOUR VEHICLE**

### **Prepare For The Appointment**

If you're having warranty work done, be sure to have the right papers with you. Take your warranty folder. All work to be performed may not be covered by the warranty, discuss additional charges with the service manager. Keep a maintenance log of your vehicle's service history. This can often provide a clue to the current problem.

### **Prepare A List**

Make a written list of your vehicle's problems or the specific work you want done. If you've had an accident, or work done that is not on your maintenance log, let the service advisor know.

### **Be Reasonable With Requests**

If you list a number of items, and you must have your vehicle by the end of the day, discuss the situation with the service advisor and list the items in order of priority. At many dealers, you may obtain a rental vehicle at a minimal daily charge. If you need a rental, it is advisable to make these arrangements when you call for an appointment.

## **IF YOU NEED ASSISTANCE**

The manufacturer and its dealers are vitally interested in your satisfaction. We want you to be happy with our products and services.

Warranty service must be done by an authorized Chrysler, Dodge, or Jeep dealer. We strongly recommend that you take your vehicle to your selling dealer. They know you and your vehicle best, and are most concerned that you get prompt and high quality service. The manufacturer's dealers have the facilities, factory-trained

technicians, special tools, and the latest information to assure your vehicle is fixed correctly and in a timely manner.

This is why you should always talk to your dealer's service manager first. Most matters can be resolved with this process.

- If for some reason you are still not satisfied, talk to the general manager or owner of the dealership. They want to know if you need assistance.
- If your dealership is unable to resolve the concern, you may contact the Manufacturer's Customer Center.

Any communication to the Manufacturer's Customer Center should include the following information:

- Owner's name and address
- Owner's telephone number (home and office)
- Dealership name

- Vehicle identification number
- Vehicle delivery date and mileage

***DaimlerChrysler Motors Corporation Customer Center***

P.O. Box 21-8004

Auburn Hills, MI 48321-8004

Phone: (800) 992-1997

***DaimlerChrysler Canada Inc. Customer Center***

P.O. Box 1621

Windsor, Ontario N9A 4H6

Phone: (800) 465-2001

***In Mexico contact:***

Av. Prolongacion Paseo de la Reforma, 1240

Sante Fe C.P. 05109

Mexico, D. F.

In Mexico (915) 729-1248 or 729-1240

Outside Mexico (525) 729-1248 or 729-1240

***Customer Assistance For The Hearing Or Speech Impaired (TDD/TTY)***

To assist customers who have hearing difficulties, the manufacturer has installed special TDD (Telecommunication Devices for the Deaf) equipment at its Customer Center. Any hearing or speech impaired customer who has access to a TDD or a conventional teletypewriter (TTY) in the United States can communicate with the manufacturer by dialing 1-800-380-CHRY.

***Service Contract***

You may have purchased a service contract for your vehicle to help protect you from the high cost of unexpected repairs after your manufacturer's new vehicle limited warranty expires. The manufacturer stands behind only the manufacturer's Service Contracts. If you purchased a manufacturer's Service Contract, you will receive Plan Provisions and an Owner Identification Card in the mail within three weeks of your vehicle delivery date. If you have any questions about your service

contract, call the manufacturer's Service Contract National Customer Hotline at 1-800-521-9922.

The manufacturer will not stand behind any service contract that is not the manufacturer's Service Contract. It is not responsible for any service contract other than the manufacturer's Service Contract. If you purchased a service contract that is not a manufacturer's Service Contract, and you require service after your manufacturer's new vehicle limited warranty expires, please refer to your contract documents, and contact the person listed in those documents.

We appreciate that you have made a major investment when you purchased your new vehicle. Your dealer has also made a major investment in facilities, tools, and training to assure that you are absolutely delighted with your ownership experience. You'll be pleased with their sincere efforts to resolve any warranty issues or related concerns.



**WARNING!**

**Engine exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. In addition, certain fluids contained in vehicles and certain products of component wear contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.**

**WARRANTY INFORMATION (U.S. Vehicles Only)**

See the Warranty Information Booklet for the terms and provisions of DaimlerChrysler's warranties applicable to this vehicle.

**MOPAR® PARTS**

Mopar® fluids, lubricants, parts, and accessories are available from your dealer. They will help you keep your vehicle operating at its best.

**REPORTING SAFETY DEFECTS**

In the 50 United States and Washington D.C.: If you believe that your vehicle has a defect, which could cause a crash or cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying the manufacturer.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, and the manufacturer.

To contact NHTSA, you may either call the Auto Safety Hotline toll free at 1-888-327-4236 (TTY: 1-800-424-9153), or go to <http://www.safercar.gov>; or write to: Administrator, NHTSA, 400 Seventh Street, SW., Washington, DC 20590. You can also obtain other information about motor vehicle safety from <http://www.safercar.gov>.

**In Canada:**

If you believe that your vehicle has a safety defect, you should contact the Customer Service Department immediately. Canadian customers who wish to report a safety defect to the Canadian government should write to Transport Canada, Motor Vehicle Defect Investigations and Recalls, 2780 Sheffield Road, Ottawa, Ontario K1B 3V9.

## PUBLICATION ORDER FORMS

To order the following manuals, you may use either the website or the phone numbers listed below. Visa, Mastercard, American Express, and Discover orders are accepted. If you prefer mailing your payment, please call for an order form.

**NOTE:** A street address is required when ordering manuals. (No P.O. Boxes).

- *Service Manuals.*

These comprehensive service manuals provide the information that students and professional technicians need in diagnosing/troubleshooting, problem solving, maintaining, servicing, and repairing DaimlerChrysler Corporation vehicles. A complete working knowledge of the vehicle, system, and/or components is written in straightforward language with illustrations, diagrams, and charts.

- *Diagnostic Procedure Manuals.*

Filled with diagrams, charts and detailed illustrations, these practical manuals make it easy for students and technicians to find and fix problems on computer-controlled vehicle systems and features. They show exactly how to find and correct problems the first time, using step-by-step troubleshooting and driveability procedures, proven diagnostic tests and a complete list of all tools and equipment.

- *Owner's Manuals.*

These manuals have been prepared with the assistance of service and engineering specialists to acquaint you with specific Chrysler group vehicles. Included are starting, operating, emergency and maintenance procedures as well as specifications, capabilities and safety tips.

***Call Toll Free at:***

- **1-800-890-4038 (U.S.)**
- **1-800-387-1143 (Canada)**

Or

***Visit us on the World Wide Web at:***

- **[www.techauthority.daimlerchrysler.com](http://www.techauthority.daimlerchrysler.com)**
- **[www.daimlerchrysler.ca/manuals](http://www.daimlerchrysler.ca/manuals)**

**DEPARTMENT OF TRANSPORTATION UNIFORM  
TIRE QUALITY GRADES**

The following describes the tire grading categories established by the National Highway Traffic Safety Administration. The specific grade rating assigned by the tire's manufacturer in each category is shown on the sidewall of the tires on your car.

All Passenger Car Tires Must Conform to Federal Safety Requirements in Addition to These Grades.

**Treadwear**

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and a half (1 1/2) times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

**Traction Grades**

The traction grades, from highest to lowest, are AA, A, B, and C. Those grades represent the tire's ability to stop on wet pavement as measured under controlled conditions

on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

### **WARNING!**

**The traction grade assigned to this tire is based on straight-ahead braking traction tests, and does not include acceleration, cornering, hydroplaning, or peak traction characteristics.**

### **Temperature Grades**

The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the

material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance, which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 109. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

### **WARNING!**

**The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, under inflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.**



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